

**NAVY TRAINING SYSTEM PLAN**

**FOR**

**NAVAL AVIATION OXYGEN SYSTEMS**

**N88-NTSP-A-50-8603C/D**

**SEPTEMBER 2000**

## **NAVAL AVIATION OXYGEN SYSTEMS**

### **EXECUTIVE SUMMARY**

Naval Aviation Oxygen Systems (NAOS) include the On-Board Oxygen Generating System (OBOGS) and the Aviators Breathing Oxygen (ABO) Contaminant Analyzer.

The OBOGS was developed to provide a continuous supply of oxygen-enriched air to the aircrew when the system is activated during aircraft engine operation. OBOGS is currently installed in the AV-8B, TAV-8B, T-45A, F-14D, and F/A-18C/D aircraft. OBOGS is scheduled for installation in all new F/A-18E/F, T-6A, and MV-22 aircraft. Initial Operational Capability (IOC) was achieved in September 1985. The Navy Support Date (NSD) for OBOGS was achieved in 1987. OBOGS is in Phase III (Production, Deployment, and Operational Support) of the Weapon System Acquisition Process (WSAP).

The ABO Contaminant Analyzer is used with existing auxiliary support equipment to provide ABO contaminant analysis capability. IOC was achieved in March 1994. All ABO Contaminant Analyzer units were delivered prior to the NSD in September 1996. This Program is in Phase III (Production, Deployment, and Operational Support) of the WSAP.

Navy Aviation Structural Mechanics (Safety Equipment) (AME) with aircraft specific Navy Enlisted Classifications (NEC) and Marine Corps Aircraft Safety Equipment Mechanics with aircraft specific Military Occupational Specialties (MOS) maintain the OBOGS at the organizational level. The ABO Contaminant Analyzer is not used at the organizational level. Navy Aviation Survival Equipmentmen with NEC 7356 and Marine Corps Flight Equipment Marines with MOS 6060 maintain OBOGS components and operate and maintain the ABO Contaminant Analyzer at the intermediate level. The respective manufacturer performs depot level maintenance for both the OBOGS and ABO Contaminant Analyzer. The manpower identified in current Navy and Marine Corps manpower documents is sufficient to support the NAOS. No new NECs or MOSs will be required.

All initial training requirements for both the OBOGS and ABO Contaminant Analyzer have been completed. Follow-on OBOGS organizational level maintenance is included in applicable aircraft Naval Air Maintenance Training Group organizational level maintenance training courses. Follow-on OBOGS intermediate level maintenance training previously established at Maintenance Training Unit (MTU) 1038 Lemoore, California, and MTU 1039 Oceana, Virginia, has been discontinued. The OBOGS maintenance curricula is being revised and added to an existing course in the Aircrew Survival Equipment Intermediate Maintenance Pipeline at Naval Air Technical Training Center (NATTC) Pensacola, Florida. The new OBOGS course will be Ready For Training in June 2001. Intermediate level operator and maintenance training for the ABO Contaminant Analyzer is included in a course which is part of the Aircrew Survival Equipment Intermediate Maintenance Pipeline at NATTC Pensacola.

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**NAVAL AVIATION OXYGEN SYSTEMS**

**LIST OF ACRONYMS**

ABO	Aviators Breathing Oxygen
AIMD	Aircraft Intermediate Maintenance Department
AME	Aviation Structural Mechanic (Safety Equipment)
AMTCS	Aviation Maintenance Training Continuum System
CIN	Course Identification Number
CINCLANTFLT	Commander In Chief, Atlantic Fleet
CINCPACFLT	Commander In Chief, Pacific Fleet
CM	Controller-Monitor
CMC	Commandant Marine Corps
CNET	Chief of Naval Education and Training
CNO	Chief of Naval Operations
COTS	Commercial Off-The-Shelf
FMS	Foreign Military Sales
G	Gravity Force
ILSP	Integrated Logistics Support Plan
JRB	Joint Reserve Base
LOX	Liquid Oxygen
MATMEP	Maintenance Training Management and Evaluation Program
MCAS	Marine Corps Air Station
MCCDC	Marine Corps Combat Development Command
MM	Machinist's Mate
MOS	Military Occupational Specialty
MSD	Material Support Date
MTIP	Maintenance Training Improvement Program
MTU	Maintenance Training Unit
NA	Not Applicable
NAF	Naval Air Facility
NAMTRAGRU DET	Naval Air Maintenance Training Group Detachment
NAMTRAU	Naval Aviation Maintenance Training Unit
NAOS	Naval Aviation Oxygen Systems

## NAVAL AVIATION OXYGEN SYSTEMS

### LIST OF ACRONYMS

NAS	Naval Air Station
NATC	Naval Air Test Center
NATTC	Naval Air Technical Training Center
NAVAIRSYSCOM	Naval Air Systems Command
NAVPERSCOM	Naval Personnel Command
NEC	Navy Enlisted Classification
NSD	Navy Support Date
NTSP	Navy Training System Plan
OBIGGS	On-Board Inert Gas Generating System
OBOGS	On-Board Oxygen Generating System
OPEVAL	Operational Evaluation
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPO	OPNAV Principal Official
O <sub>2</sub> -N <sub>2</sub>	Oxygen-Nitrogen
PMA	Program Manager, Air
PO <sub>2</sub>	Pressure of Oxygen
PPO <sub>2</sub>	Partial Pressure of Oxygen
PR	Aviation Survival Equipmentman
PSA	Pressure Swing Adsorption
PSI	Pounds per Square Inch
RFT	Ready For Training
SSOM	Solid State Oxygen Monitor
TBD	To Be Determined
TD	Training Device
TECHEVAL	Technical Evaluation
TFS	Total Force Structure
TTE	Technical Training Equipment
WRA	Weapon Replaceable Assembly

## **NAVAL AVIATION OXYGEN SYSTEMS**

### **PREFACE**

This Draft Navy Training System Plan (NTSP) for the Naval Aviation Oxygen Systems (NAOS) updates the On-Board Oxygen Generating System (OBOGS) Approved NTSP, A-50-8603B/A, dated June 1994. This document has been developed in accordance with the guidelines set forth in the Navy Training Requirements Documentation Manual, Office of the Chief of Naval Operations (OPNAV) Publication P-751-1-9-97. Major changes to this document include:

- Changing the name of the NTSP from On-Board Oxygen Generating System to Naval Aviation Oxygen Systems. This title change more accurately reflects the revised content of the document.
- Incorporation of information applicable to the A/E 24T-226 Aviators Breathing Oxygen (ABO) Contaminant Analyzer. This information was previously contained in NTSP A-50-9308A/D, A/E 24T-226 Aviators Breathing Oxygen Contaminant Analyzer, dated February 1999.
- Updating all information for OBOGS and the A/E 24T-226 ABO Contaminant Analyzer.
- Incorporation of NTSP format changes and updating of milestones since the last publication date.

## PART I - TECHNICAL PROGRAM DATA

### A. NOMENCLATURE-TITLE-PROGRAM

1. **Nomenclature-Title-Acronym.** Naval Aviation Oxygen Systems (NAOS)
2. **Program Element.** 64264N

### B. SECURITY CLASSIFICATION

1. **System Characteristics** ..... Unclassified
2. **Capabilities** ..... Unclassified
3. **Functions**..... Unclassified

### C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor..... CNO (N88)

OPO Resource Sponsor ..... CNO (N88)

Functional Mission Sponsor..... CNO (N88)

Marine Corps Program Sponsor..... CMC (ASL-33)

Developing Agency..... NAVAIRSYSCOM (PMA202)

Training Agency ..... CINCLANTFLT  
CINCPACFLT  
CMC  
CNET

Training Support Agency..... NAVAIRSYSCOM (PMA205)

Manpower and Personnel Mission Sponsor ..... CNO (N12)  
NAVPERSCOM (PERS-40, PERS-404)

Director of Naval Training..... CNO (N7)

Marine Corps Force Structure..... MCCDC (C53)

## **D. SYSTEM DESCRIPTION**

### **1. Operational Uses.** NAOS includes the OBOGS and the ABO Contaminant Analyzer.

**a. On-Board Oxygen Generating System.** The OBOGS is designed to provide a continuous supply of oxygen-enriched air to the aircrew when the system is activated during aircraft engine operation. OBOGS installation eliminates aircraft dependence on liquid oxygen facilities. OBOGS facilitates the deployment of aircraft aboard air capable ships and shore bases that do not have oxygen-manufacturing capability.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** The model A/E 24T-226 ABO Contaminant Analyzer is a modularized unit designed for analyzing contaminant levels and determining the concentration of contaminants that may be present in ABO.

**2. Foreign Military Sales.** For information concerning Foreign Military Sales (FMS) of NAOS equipment, contact PMA202D.

## **E. DEVELOPMENTAL TEST AND OPERATIONAL TEST**

### **1. Technical Evaluation**

**a. On-Board Oxygen Generating System.** Technical Evaluation (TECHEVAL) was conducted on an OBOGS-equipped AV-8A aircraft from February 1980 to August 1981 at the Naval Air Test Center (NATC), Patuxent River, Maryland, and Marine Corps Air Station (MCAS), Yuma, Arizona. TECHEVAL on an improved OBOGS installed in an AV-8A aircraft was conducted at NATC Patuxent River from January to March 1982. Results were satisfactory.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** Two TECHEVALs were conducted on the ABO Contaminant Analyzer at the Naval Air Warfare Center, Aircraft Division, Patuxent River. These evaluations were completed in July 1993. After correcting discrepancies, the ABO Contaminant Analyzer was approved for fleet use in 1994.

### **2. Operational Evaluation**

**a. On-Board Oxygen Generating System.** Operational Evaluation (OPEVAL) was conducted on an AV-8 OBOGS-equipped aircraft at MCAS Yuma from October 1983 to February 1984. Marine Corps personnel under the direction of the Commander, Operational Test and Evaluation Force, Norfolk, Virginia, conducted OPEVAL. OBOGS was found operationally suitable and effective.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** No OPEVAL was required for the ABO Contaminant Analyzer.



## **F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED**

**1. On-Board Oxygen Generating System.** The OBOGS is an additional stand-alone system and does not replace any existing oxygen system.

**2. Aviators Breathing Oxygen Contaminant Analyzer.** The ABO Contaminant Analyzer replaced the ACCULAB-4 and ACCULAB-8 Oxygen Analyzers.

## **G. DESCRIPTION OF NEW DEVELOPMENT**

### **1. Functional Description**

**a. On-Board Oxygen Generating System.** The OBOGS consists of three primary components: an oxygen concentrator, an oxygen monitor, and an oxygen regulator. OBOGS provides a continuous supply of breathing gas to the aircrew when the system's electrical power source is activated and the engine bleed air or conditioned air is provided to the inlet of the oxygen concentrator. The self-contained OBOGS includes the GGU-7/A or GGU-12/A Oxygen Concentrators, CRU-83/A or CRU-91/A Polarographic Oxygen Monitors, or CRU-99/A Solid State Oxygen Monitor (SSOM) and CRU-82/P, CRU-88/P or CRU-103/P Oxygen Regulators. Airframe peculiar equipment, which includes plenum(s), valves, plumbing, and other parts, are required in order to integrate the OBOGS with the host aircraft.

**(1) Oxygen Concentrator.** The Oxygen Concentrator is a self-contained unit that is capable of providing the breathing requirements for an individual at altitudes up to 50,000 feet. The oxygen concentrator extracts undesirable gases from either engine bleed air or conditioned air and provides a continuous high concentration of oxygen enriched air for aircrew use. The gaseous product consists of approximately six-percent argon with the balance consisting of oxygen. The concentrator is located on the F-14D and F/A-18C/D in the same space previously occupied by the Liquid Oxygen (LOX) converter. The AV-8B and T-45 were originally designed and fielded with OBOGS installed. Oxygen Concentrator GGU-7/A (P/N 3261009-0105) is installed in the TAV-8B, AV-8B, and T-45A/B aircraft. Oxygen Concentrator GGU-12/A (P/N 3261077-0101) is installed in the F-14D and F/A-18C/D/E/F. The concentrator is composed of the following items:

**(a) Molecular Sieve Beds.** Two Molecular Sieve Beds act to adsorb nitrogen molecules through molecular bonding as engine bleed air or conditioned air passes through them. Each bed contains 5.5 pounds of molecular sieve. As the source air flows through the bed, the sieve retains the unwanted gasses, with the desired oxygen enriched air exiting the sieve bed and being routed to the aircrew. The sieve beds are purged, via cycling of the rotary valve, on alternate cycles in which nitrogen is dissipated with other undesirable gases and vented overboard. The sieve beds do not require periodic replacement.

**(b) Rotary Valve Assembly.** The Rotary Valve Assembly consists of a direct current motor driven valve which rotates on a timed basis to control the gas flow in order to cause alternate adsorption and desorption cycles in the sieve beds.

**(c) Electronics Box Assembly.** The Electronics Box Assembly controls the temperature of the heater assembly and shroud heater solenoid and controls timing of the rotary valve assembly.

**(d) Plenum Assembly.** The Plenum Assembly stores oxygen rich gas produced by the molecular sieve beds.

**(e) Inlet Filter Assembly.** The Inlet Filter Assembly removes contaminants from the air source before being routed to the sieve beds.

**(2) Oxygen Monitor.** The Oxygen Monitor senses Partial Pressure of Oxygen (PPO<sub>2</sub>) and provides a warning signal through the aircraft's WARNING-CAUTION-ADVISORY system if the oxygen concentration falls below 182 millimeters of mercury. CRU-83/A and CRU-91/A oxygen monitors are installed in the AV-8B and TAV-8B aircraft. The monitor is mounted in the cockpit and consists of the following items:

**(a) Aneroid Assembly.** The Aneroid Assembly senses the change in air pressure resulting from changes in altitude.

**(b) Aneroid Valve and Filter Assembly.** The Aneroid Valve and Filter Assembly controls pressure in the oxygen sensor chamber in order to prevent false low PPO<sub>2</sub> warnings.

**(c) Sensor Cover Assembly.** The Sensor Cover Assembly provides access to the sensor chamber for sensor replacement.

**(d) Oxygen Sensor.** The Oxygen Sensor is a polarographic oxygen sensor that detects Pressure of Oxygen (PO<sub>2</sub>) while being insensitive to other gases. An electrical current, proportional to PO<sub>2</sub>, is produced by the sensor activating a warning light when PO<sub>2</sub> falls below the minimum physiological requirements.

**(e) Press to Vent Assembly.** The Press To Vent Assembly is an inlet assembly that draws ambient air across the oxygen sensor when the plunger Built-In Test valve is depressed.

**(f) Cover Screw and Lanyard Assembly.** The Cover Screw and Lanyard Assembly provide access to the monitor gain adjustment potentiometer.

**(3) Solid State Oxygen Monitor.** The CRU-99/A SSOM (P/N 3270063-0102) is a direct replacement for the CRU-83/A and CRU-91/A Polarographic Oxygen Monitors. The oxygen sensor in the SSOM is of the current limiting zirconia type. The SSOM incorporates several self-test features and is not adjustable. No intermediate level testing or maintenance is performed on it. The CRU-99/A SSOM is installed in the F-14D, F/A-18C/D/E/F, and T-45A aircraft.

**(4) CRU-82/P Oxygen Regulator.** The CRU-82/P Oxygen Regulator is mounted by a quick disconnect attachment to the aircrew parachute harness. The regulator is an automatic pressure breathing type, providing breathing oxygen to the aircrewman's facemask on demand. It is designed specifically for the OBOGS and is characterized by the fact that it has the capacity to function at lower pressures than the 40 pounds per square inch (PSI) minimum required by standard miniature regulators.

**(5) CRU-103/P Demand Oxygen Regulator.** The CRU-103/P Demand Oxygen Regulator is designed for use with all tactical aircraft series oxygen masks as part of the oxygen system in aircraft with liquid oxygen systems or OBOGS. The regulator, which is manufactured by Carleton Technologies Inc., is designed to regulate oxygen to the aircrew member during flight. The CRU-103/P Demand Oxygen Regulator was developed as a part of the Navy Combat Edge system. It is a chest mounted, automatic positive pressure breathing type, Gravity Force (G)-modulated regulator that provides demand oxygen flow to the aircrew member including Pressure Breathing for Altitude and Pressure Breathing for Gs. This regulator is scheduled to replace the CRU-79/P, CRU-82/P, and CRU-88/P series regulators.

**(6) Oxygen-Nitrogen Generating System (MV-22).** The Oxygen-Nitrogen Generating System (O<sub>2</sub>-N<sub>2</sub>) Generating System used in the MV-22 consists of a Controller-Monitor (CM) and the Pressure Swing Adsorption (PSA) assembly. The CM functions as the controller interfacing with the O<sub>2</sub>-N<sub>2</sub> concentrator and the control panel. The PSA assembly consists of the OBOGS and the On-Board Inert Gas Generating System (OBIGGS). The OBOGS can produce enough oxygen for all four crewmembers under all temperature and altitude conditions. The system uses pressure swing adsorption to produce oxygen enriched and oxygen depleted gas. The OBIGGS supplies oxygen-depleted air to the fuel tanks with an oxygen concentration of not more than seven-percent oxygen.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** The ABO Contaminant Analyzer is capable of scanning a gas phase sample containing up to 15 contaminants and providing an output of the quantitative results. This analysis is performed on gas samples at one PSI above sea level pressure. Contaminant analysis time, including evacuated cell analysis (background scan), sample analysis, data processing, and printout of results, is less than ten minutes. The unit's computer is capable of searching a library and comparing it with sample spectra to estimate the composition of the suspected contaminant substance(s). The ABO Contaminant Analyzer uses an Infrared Spectrophotometer integrated with a microprocessor, which produces a printout of the qualitative and quantitative contamination levels encountered. The ABO Contaminant Analyzer is used to ensure specifications of the ABO are maintained per the technical manual AG-332AO-GYD-000, ABO Surveillance Program Laboratory Manual and Field Guide. The ABO Contaminant Analyzer is located at Navy and Marine Corps Air Stations, expeditionary sites, and onboard Navy aircraft carriers. The unit consists of the following components:

**(1) Data Processor.** The Data Processor changes the signal from the infrared detector into a spectrum curve, then compares it to spectrum curves of a preprogrammed signal to determine if a contaminant is present, and, if so, at what quantity.

**(2) Built-In Keyboard.** The Built-In Keyboard is a 40-character keypad, similar to a standard typewriter with numeric keypad. The Built-In Keyboard is used for entering textual information.

**(3) Two-Line Display.** Most software functions appear as menu options in the Two-Line Display. Four blue soft keys, adjacent to the display, allow selection of the desired software function from the menu.

**(4) Internal Printer.** The Internal Printer is permanently mounted and prints on four-inch wide rolled thermal paper.

**(5) Optics.** The three main components of the Optics are the Michelson interferometer, an infrared light source, and a detector. The interferometer consists of a partially reflective beam-splitter mirror, a mirror that oscillates back and forth, and an automatic alignment machine for the beam splitter.

**(6) Gas Cell.** The Gas Cell houses the gas sample during analysis and is located in the sample compartment. The 10-meter multi-path length cell bounces the beam of infrared light back and forth within the cell to achieve a greater path length without the need for an excessively large gas cell. All gas cells feature a safety release valve that prohibits pressure inside the cell from exceeding 25 PSI.

**(7) Hard Drive.** A 210-megabyte internally mounted hard drive provides space for storing the system software and the spectrum libraries.

**(8) Laser.** The source of laser energy is a nominal two-milliwatt, continuous, 632.8 nanometer laser head.

## **2. Physical Description**

**a. On-Board Oxygen Generating System.** The components of the OBOGS system are contained within the interior portion of the aircraft and do not affect any storage or aircraft handling considerations.

### **b. Aviators Breathing Oxygen Contaminant Analyzer**

Electrical requirements .....	115 Volts, 60 Hertz
Electro Magnetic Interference .....	5 Volts Per Meter (MIL-STD-461, RS03)
Length .....	30.5 inches
Width.....	42 inches
Height.....	23 inches
Shipping Weight.....	300 pounds

### **3. New Development Introduction**

**a. On-Board Oxygen Generating System.** The OBOGS will be installed in the MV-22, T-6A, and F/A-18E/F aircraft during production. Existing AV-8B, TAV-8B and T-45A/B aircraft were fielded with OBOGS installed. OBOGS was installed in existing F-14D and F/A-18C/D aircraft through retrofit programs.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** The ABO Contaminant Analyzer was procured as a non-developmental Commercial Off-The-Shelf (COTS) item.

### **4. Significant Interfaces**

**a. On-Board Oxygen Generating System.** The OBOGS interfaces directly with the ejection seat quick disconnect fittings used during emergency egress in the MV-22, T-6A, AV-8B, TAV-8B, T-45A/B, F-14D, and F/A-18C/D/E/F aircraft.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** Not Applicable (NA)

### **5. New Features, Configurations, or Material. NA**

## **H. CONCEPTS**

### **1. Operational Concept**

**a. On-Board Oxygen Generating System.** The OBOGS is activated during aircraft engine operation and requires no operator.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** The ABO Contaminant Analyzer is operated at the intermediate maintenance level by Navy Aircrew Survival Equipmentman (PR) personnel with Navy Enlisted Classification (NEC) 7356 and Marine Corps personnel with Military Occupational Specialty (MOS) 6060 assigned to Work Center 81C, Oxygen Regulator and Equipment Shop. Machinist's Mate (MM) personnel with NEC 4201 and Marine Corps personnel with MOS 6075 assigned to Work Center 820, Oxygen/Nitrogen Generating Facility, also operate the ABO Contaminant Analyzer. The ABO Contaminant Analyzer is used as required with a minimum average operating time of 2.5 hours per week. The manpower, personnel, and training requirements associated with Navy and Marine Corps personnel assigned to Work Center 820 are addressed in the Trailer Mounted Liquid Oxygen/Nitrogen Generating Plant NTSP identified in Part I, paragraph M of this document.

## 2. Maintenance Concept

### a. On-Board Oxygen Generating System

**(1) Organizational.** Organizational level maintenance is performed by Aviation Structural Mechanic (Safety Equipment) (AME) and Marine Corps Aircraft Safety Equipment Mechanic personnel assigned to the Egress-Environmental Systems Shop, Work Center 13B.

**(a) Preventive Maintenance.** Preventive maintenance consists of functional tests every 28 days on aircraft equipped with the CRU-83/A or CRU-91/A Polarographic Oxygen Monitors, and every 56 days on F-14D aircraft equipped with the CRU-99/A SSOM using the TTU-520A/E Aircraft Oxygen Test Set. Due to the high reliability demonstrated on the F/A-18C/D aircraft, the preventive maintenance inspection has been eliminated. The GGU-7/A Oxygen Concentrator is removed and forwarded to the intermediate level for the Inlet Filter change and functional check every 500 flight hours. The GGU-12/A Oxygen Concentrator is removed and forwarded to the intermediate level for the Inlet Filter change and functional check every 400-flight hours. Although the F/A-18 aircraft concentrator undergoes intermediate level check during the aircraft Phase B and D inspections, it is also accomplished within the required 400-flight hour window. Additionally, preflight visual and functional testing of the CRU-82/P, CRU-88/P, and CRU-103/P Oxygen Regulator is performed every 30 days in accordance with NAVAIR 13-1-6.4, Aviation Crew Systems Oxygen Equipment Manual. OBOGS/OBIGGS preventive maintenance requirements for the MV-22 aircraft will be prescribed in the MV-22 Maintenance Plan, which is pending final approval.

**(b) Corrective Maintenance.** Corrective maintenance consists of fault isolating plumbing, wiring, and Weapon Replaceable Assemblies (WRA) using Built-In Test and Common Support Equipment. Faulty WRAs are forwarded to the intermediate or depot maintenance level, as applicable, for repair.

**(2) Intermediate.** Intermediate level maintenance is performed by PRs with NEC 7356 and Marine Corps personnel with MOS 6060, assigned to Work Center 81C, Oxygen Regulator and Equipment Shop, of Aircraft Intermediate Maintenance Departments and Marine Aviation Logistics Squadrons. Intermediate level maintenance for the MV-22 OBOGS/OBIGGS assembly is To Be Determined (TBD). The following table illustrates the intermediate maintenance level requirements by system:

SYSTEM	INTERMEDIATE MAINTENANCE REQUIREMENTS
GGU-7/A Oxygen Concentrator (Preventive Maintenance)	Inspect for material condition and repair as necessary. Remove and replace Inlet Filter Element and bench test the Oxygen Concentrator every 500 flight hours.

<b>SYSTEM</b>	<b>INTERMEDIATE MAINTENANCE REQUIREMENTS</b>
GGU-7/A Oxygen Concentrator (Corrective Maintenance)	Fault isolate, remove and replace defective components as necessary, and perform bench test.
GGU-7/A Sieve Bed, Rotary Valve Assembly, Oxygen Concentrator, Electric Box	Forward to depot level for repair.
GGU-7/A Plenum Assembly, Inlet Filter Assembly, Shroud Assembly	Limited repair capability.
GGU-12/A Oxygen Concentrator (Preventive Maintenance)	Inspect for material condition and repair as necessary. Remove and replace Inlet Filter Element and bench test the Oxygen Concentrator every 400 flight hours.
GGU-12/A Oxygen Concentrator (Corrective Maintenance)	Fault isolate, remove and replace defective components as necessary, and perform bench test.
GGU-12/A Sieve Bed, Rotary Valve Assembly, Oxygen Concentrator	Forward to depot level for repair.
GGU-12/A Plenum Assembly, Inlet Filter Assembly, Top Shroud Assembly, Wrap Shroud Assembly, Bottom Shroud Assembly	Limited repair capability.
CRU-83/A Polarographic Oxygen Monitor (Preventive Maintenance)	Inspect for material condition and repair as necessary. Perform bench test of the Monitor and lubricate the Monitor Inlet Valve Assembly every 364 days.
CRU-83/A Polarographic Oxygen Monitor (Corrective Maintenance)	Fault isolate, remove defective parts as necessary, and perform bench test.
CRU-83/A Monitor, Inlet Valve, Aneroid Valve, and Filter Assy.	Limited repair capability.
CRU-91/A Polarographic Oxygen Monitor (Preventive Maintenance)	Inspect for material condition and repair as necessary. Perform bench test of the Monitor and lubricate the Monitor Inlet Valve Assembly every 364 days.

<b>SYSTEM</b>	<b>INTERMEDIATE MAINTENANCE REQUIREMENTS</b>
CRU-91/A Polarographic Oxygen Monitor (Corrective Maintenance)	Fault isolate, remove and replace defective parts, and perform bench test.
CRU-91/A Monitor, Inlet Valve, Aneroid Valve, and Filter Assy.	Limited repair capability.
CRU-99/A SSOM (Corrective Maintenance)	Forward Monitor to depot level for repair.
CRU-82/P and CRU-88/P Oxygen Regulators (Preventive Maintenance)	Perform "place in service" inspection in accordance with NAVAIR 13-1-6.4. Perform bench test of the Regulator every 90 days in accordance with NAVAIR 13-1-6.4.
CRU-82/P and CRU-88/P Oxygen Regulators (Corrective Maintenance)	Fault isolate, remove and replace defective components as necessary, and perform bench test in accordance with NAVAIR 13-1-6.4.
CRU-103/P Oxygen Regulator (Preventive Maintenance)	Perform "place in service" inspection in accordance with NAVAIR 13-1-6.4. Perform bench test of the Regulator every 90 days in accordance with NAVAIR 13-1-6.4.
CRU-103/P Oxygen Regulator (Corrective Maintenance)	Fault isolate, remove and replace defective components as necessary, and perform bench test in accordance with NAVAIR 13-1-6.4.

(3) **Depot.** The Litton Corporation, Life Support Division, Davenport, Iowa, performs depot level maintenance and rework of OBOGS components.

(4) **Interim Maintenance.** NA

(5) **Life Cycle Maintenance Plan.** NA

**b. Aviators Breathing Oxygen Contaminant Analyzer.** Maintenance of the ABO Contaminant Analyzer is performed at two levels, intermediate and depot.

(1) **Organizational.** NA

(2) **Intermediate.** PRs with NEC 7356 and Marine Corps personnel with MOS 6060 assigned to Work Center 81C, Oxygen Regulator and Equipment Shop, perform intermediate maintenance on the Aviators Breathing Oxygen Contaminant Analyzer.



**(a) Preventive Maintenance.** Preventive maintenance consists of pre-operational inspections, replenishment of consumable items, adjustment of pressures, cleaning, servicing, and corrosion control.

**(b) Corrective Maintenance.** Corrective maintenance consists of fault isolation, and removal and replacement of defective assemblies and components.

**(3) Depot.** Depot level maintenance of the ABO Contaminant Analyzer is performed by Nicolet Instrument Corporation, Madison, Wisconsin, and includes repair of components beyond the capability of intermediate level maintenance and equipment overhaul.

**(4) Interim Maintenance.** NA

**(5) Life-Cycle Maintenance Plan.** NA

### **3. Manning Concept**

**a. On-Board Oxygen Generating System.** Organizational level maintenance of the OBOGS is performed by Navy AMEs and Marine Corps Aircraft Safety Equipment Mechanics. Organizational level maintenance manpower, personnel, and training requirements associated with OBOGS are addressed in the individual aircraft NTSPs identified in Part I, paragraph M of this document. PRs with NEC 7356 and Marine Corps personnel with MOS 6060 maintain OBOGS components at the intermediate level. Existing intermediate maintenance manpower requirements will remain unchanged. No new NECs or MOSs will be required.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** The ABO Contaminant Analyzers is operated and maintained at the intermediate maintenance level by Navy PRs with NEC 7356, and Marine Corps personnel with MOS 6060. Existing intermediate maintenance manpower requirements will remain unchanged. No new NECs or MOSs will be required.

**4. Training Concept.** All initial training requirements for both the OBOGS and ABO Contaminant Analyzer have been completed. Follow-on OBOGS organizational level maintenance is included in applicable Naval Air Maintenance Training Group Detachment (NAMTRAGRU DET) or Naval Air Maintenance Training Unit (NAMTRAU) aircraft organizational level maintenance training courses. Follow-on OBOGS intermediate level maintenance training previously established at Maintenance Training Unit (MTU) 1038 NAMTRAU Lemoore, California, and MTU 1039 NAMTRAU Oceana, Virginia, has been discontinued. The OBOGS maintenance curricula is being revised and added to existing course C-602-2028, LOX Converter Test Stand/LOX Converter and Survival Kit repair, which is part of the Aircrew Survival Equipment Intermediate Maintenance Pipeline at Naval Air Technical Training Center (NATTC) Pensacola, Florida. Intermediate level operator and maintenance training for the ABO Contaminant Analyzer is included in course C-670-2018, Aviator's

Breathing Oxygen Test Site Operator/Analyst, which is part of the Aircrew Survival Equipment Intermediate Maintenance Pipeline at NATTC Pensacola.

**a. Initial Training**

**(1) On-Board Oxygen Generating System.** Initial training for TECHEVAL and OPEVAL personnel was conducted in 1985 by the manufacturer at Clifton Precision Instrument, now Litton Life Support, in Davenport, Iowa. Initial organizational maintenance training for NAMTRAGRU DET instructors consisted of two courses conducted by the aircraft manufacturer in 1985. Initial intermediate maintenance training for NAMTRAGRU DET instructors was conducted in 1985 by Clifton Precision Instrument.

**(2) Aviators Breathing Oxygen Contaminant Analyzer.** Nicolet Instrument Corporation, Madison, Wisconsin, provided initial training for OPEVAL and NATTC Pensacola instructor personnel. All initial training was completed in 1993.

**b. Follow-On Training.** OBOGS refresher continuation training for ejection seat equipped aircraft is conducted at various Aviation Survival Training Centers and is fully documented in the Naval Aviation Survival Training Program NTSP identified in Part I, paragraph M of this document.

Follow-on OBOGS organizational maintenance training is established by the specific aircraft community at their respective NAMTRAGRU DET or NAMTRAU. The Ready For Training (RFT) date for OBOGS organizational level training was June 1993. The tracks for the applicable aircraft are listed below and detailed in the respective aircraft NTSPs listed in Part I, paragraph M of this document. The T-45A/B and T-6A aircraft are contractor maintained.

AIRCRAFT	CIN	TITLE
AV-8B	M-602-0163	AV-8B Aircraft Safety Equipment Mechanic Organizational Maintenance
F-14D	D-602-1667	F-14 Environmental/Escapes Systems Initial Organizational Maintenance
F/A-18C/D	D/E-602-0662	F/A-18 Safety Equipment Initial Organizational Maintenance
F/A-18E/F	E-602-0664	F/A-18E/F Safety Equipment (Initial) Organizational Maintenance
MV-22	M-602-XXX2	MV-22 Environmental Control Miscellaneous Utilities/Egress Systems Organizational Maintenance

Follow-on OBOGS intermediate maintenance training was originally established at MTU 1038 Lemoore, California, and MTU 1039 Cecil Field, Florida, in June 1993 in the form of

stand-alone course C-602-4892, On-Board Oxygen Generating System Intermediate Maintenance. The content of course C-602-4892 is being integrated within course C-602-2028, LOX Converter Test Stand/LOX Converter and Survival Kit Unit Repair, which is part of track C-602-2040, Aircrew Survival Equipment Intermediate Maintenance Pipeline. Note that course C-602-4892 is currently unavailable due to the course rewrite and transition of Technical Training Equipment (TTE) from NAMTRAU Lemoore to NATTC Pensacola. The revised course is scheduled to be RFT in June 2001. The addition of OBOGS will not affect the length of the current training track. Follow-on ABO Contaminant Analyzer operator and maintenance training is provided in course C-670-2018, Aviators Breathing Oxygen Test Site Operator/Analyst, which is also part of track C-602-2040, Aircrew Survival Equipment Intermediate Maintenance Pipeline.

<b>Title</b> .....	<b>Aircrew Survival Equipment Intermediate Maintenance Pipeline</b>
CIN .....	C-602-2040, Path 2
Model Manager ...	NATTC Pensacola
Description .....	<p>This track provides training to Aircrew Survival Equipment maintenance personnel including:</p> <ul style="list-style-type: none"> <li>o A/E 24T-226 ABO Contaminant Analyzer operation and maintenance</li> <li>o LOX converter test stand operation and maintenance</li> <li>o LOX converter maintenance</li> <li>o Flowmeter repair and calibration</li> <li>o Regulator valve repair</li> <li>o IT-71 oxygen test stand operation and maintenance</li> <li>o Purging device operation and maintenance</li> <li>o Oxygen monitor repair</li> <li>o Oxygen concentrator repair</li> <li>o Nitrogen regulator repair</li> <li>o Oxygen and nitrogen cylinder servicing and handling</li> <li>o Pressurized parachute packing</li> <li>o Naval Aircrew Common Ejection Seat Packing Press operation and maintenance</li> </ul> <p>Upon completion, the student will be able to maintain and repair aircrew survival equipment in a shop environment under limited supervision.</p>
Location .....	NATTC Pensacola
Length .....	54 days
RFT date .....	Currently available. RFT June 2001 with OBOGS.
Skill identifier .....	PR 7356
TTE/TD .....	See elements IV.A.1 and IV.A.2

- Prerequisite .....   o C-602-2035, Aircrew Survival Equipmentman Common Core Class A1  
                                   o C-602-2037, Aircrew Survival Equipmentman Intermediate Level Strand Class A1

**Note 1.** Marine Corps personnel receive MOS 6075, Cryogenics Equipment Operator, by successfully completing course M-750-6075 at MTU 1006 Cherry Point, North Carolina. Navy MMs receive NEC 4201, Cryogenics Technician Overseas Shore Based Equipment Operator/Maintainer, by successfully completing course M-750-9901 at MTU 1006 Cherry Point. The use of the A/E 240T-226 ABO Contaminant Analyzer is contained in both of these courses. This training is addressed in detail in the Trailer Mounted Liquid Oxygen/Nitrogen Generating Plant NTSP identified in Part I, paragraph M of this document.

**Note 2.** Course C-602-2035, Aircrew Survival Equipmentman Common Core Class A1 and C-602-2037, Aircrew Survival Equipmentman Intermediate Level Strand Class A1 are currently in the process of being combined into one course. This new course will be ready for training in FY02.

#### **c. Student Profiles**

<b>SKILL IDENTIFIER</b>	<b>PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS</b>
PR 7356	<ul style="list-style-type: none"> <li>° C-602-2035, Aircrew Survival Equipmentman Common Core Class A1</li> <li>° C-602-2037, Aircrew Survival Equipmentman Intermediate Level Strand Class A1</li> </ul>
MOS 6060	<ul style="list-style-type: none"> <li>° C-602-2035, Aircrew Survival Equipmentman Common Core Class A1</li> <li>° C-602-2037, Aircrew Survival Equipmentman Intermediate Level Strand Class A1</li> </ul>

**d. Training Pipeline.** No additional training pipelines will be required.

### **I. ONBOARD (IN-SERVICE) TRAINING**

#### **1. Proficiency or Other Training Organic to the New Development**

**a. Maintenance Training Improvement Program.** The Maintenance Training Improvement Program (MTIP) is used to establish an effective and efficient training system responsive to fleet training requirements. MTIP is a training management tool that, through diagnostic testing, identifies individual training deficiencies at the organizational and intermediate levels of maintenance. MTIP is the comprehensive testing of one's knowledge. It consists of a bank of test questions

managed through automated data processing. The Deputy Chief of Staff for Training assisted in development of MTIP by providing those question banks (software) already developed by the Navy. MTIP was implemented per OPNAVINST 4790.2 series. MTIP allows increased effectiveness in the application of training resources through identification of skills and knowledge deficiencies at the activity, work center, or individual technician level. Refresher training is concentrated where needed to improve identified skill and knowledge shortfalls. MTIP will be replaced by the Aviation Maintenance Training Continuum System (AMTCS). Current planning is for AMTCS to begin full implementation for fleet deployment on 1 October 2000.

COMNAVAIRPAC has discontinued using MTIP. They are currently using maintenance data products as a source to determine maintenance training deficiencies until AMTCS is implemented.

**b. Aviation Maintenance Training Continuum System.** AMTCS will provide career path training to the Sailor or Marine from their initial service entry to the end of their military career. AMTCS is planned to be an integrated system that will satisfy the training and administrative requirements of both the individual and the organization. The benefits will be manifested in the increased effectiveness of the technicians and the increased efficiencies of the management of the training business process. By capitalizing on technological advances and integrating systems and processes where appropriate, the right amount of training can be provided at the right time, thus meeting the CNO's mandated "just-in-time" training approach.

Technology investments enable the development of several state-of-the-art training and administrative tools: Computer-Based Training for the technicians in the Fleet in the form of Interactive Courseware with Computer Managed Instruction and Computer Aided Instruction for the schoolhouse.

Included in the AMTCS development effort is the Aviation Maintenance Training Continuum System - Software Module, which provides testing, recording using Electronic Training Jackets, and a feedback system. The core functionality of these AMTCS tools are based and designed around the actual maintenance-related tasks the technicians perform, and the tasks are stored and maintained in a Master Task List data bank. These tools are procured and fielded with appropriate COTS hardware and software, i.e., Fleet Training Devices, Laptops, Personnel Computers, Electronic Classrooms, Learning Resource Centers, operating software, and network software and hardware.

Upon receipt of direction from OPNAV (N889H), AMTCS is to be implemented and the new tools integrated into the daily training environment of all participating aviation activities and supporting elements. AMTCS will serve as the standard training system for aviation maintenance training within the Navy and Marine Corps, and is planned to supersede the existing MTIP and Maintenance Training Management and Evaluation Program (MATMEP) programs.

## **2. Personnel Qualification Standards. NA**

**3. Other Onboard or In-Service Training Packages.** Marine Corps onboard training is based on the current series of MCO P4790.12, Individual Training Standards System and

Maintenance Training Management and Evaluation Program (MATMEP). This program is designed to meet Marine Corps, as well as Navy OPNAVINST 4790.2 series, maintenance training requirements. It is a performance-based, standardized, level-progressive, documentable, training management and evaluation program. It identifies and prioritizes task inventories by MOS through a front-end analysis process that identifies task, skill, and knowledge requirements of each MOS. MTIP questions coupled to MATMEP tasks will help identify training deficiencies that can be enhanced with refresher training. (MATMEP is planned to be replaced by AMTCS.)

## **J. LOGISTICS SUPPORT**

### **1. Manufacturer and Contract Numbers**

<b>CONTRACT NUMBER</b>	<b>MANUFACTURER</b>	<b>ADDRESS</b>
N62269-83-C-0204 (AV-8 OBOGS only)	Litton Life Support Litton Systems, Inc.	P.O. Box 4508 Davenport, IA 52808-4508
N00019-86-C-0182 (All other OBOGS)	Litton Life Support Litton Systems, Inc.	P.O. Box 4508 Davenport, IA 52808-4508
N68335-92-C-0186 (ABO Contaminant Analyzer)	Nicolet Instrument Corporation	52252 Verona Road Madison, WI 53744-4451

### **2. Program Documentation**

**a. On-Board Oxygen Generating System.** The Integrated Logistics Support Plan AV-ILSP-229 was approved on 15 February 1984, and revised 20 July 1990.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** A Users Logistics Support Summary, NAWCADLKE-ULSS-91015, was published in November 1995.

### **3. Technical Data Plan**

**a. On-Board Oxygen Generating System.** Naval Air Training and Operating Procedures Standardization manual changes for all applicable aircraft have been updated to include OBOGS. Organizational maintenance instruction manuals, illustrated parts breakdown, and Maintenance Requirement Cards have been updated to include OBOGS. The intermediate and depot maintenance manual has been updated to include the OBOGS concentrator, monitor, and regulator. Refer to Part IV.B.3 of this NTSP for technical manual requirements at the training site.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** All publications required to support the operation, maintenance, and training of the ABO Contaminant Analyzer

were delivered as part of the new equipment delivery order package. Refer to Part IV.B.3 of this NTSP for technical manual requirements at the training site.

#### **4. Test Sets, Tools, and Test Equipment**

**a. On-Board Oxygen Generating System.** The test sets, tools, and test equipment required to support OBOGS maintenance and training are identified in the Aviation-Crew Systems Oxygen Equipment Manual, NAVAIR 13-1-6.4. Refer to Part IV.A.1 of this NTSP for test sets, tools, and test equipment requirements at the training site.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** The test sets, tools, and test equipment required to support ABO Contaminant Analyzer maintenance and training are identified in the Installation Operation and Maintenance Instructions for the ABO Contaminant Analyzer, NAVAIR Publication 13-1-6.4. Refer to Part IV.A.1 of this NTSP for test sets, tools, and test equipment requirements at the training site.

#### **5. Repair Parts**

**a. On-Board Oxygen Generating System.** Spares and repair parts for the OBOGS are available through normal supply channels and are managed by the Naval Inventory Control Point, Mechanicsburg, Pennsylvania. The Material Support Date (MSD) was achieved in 1986 and the Navy Support Date (NSD) was achieved in 1987.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** Spares and repair parts for the ABO Contaminant Analyzer are available through normal supply channels and are managed by the Naval Inventory Control Point, Mechanicsburg. The MSD was September 1995 and the NSD was September 1996.

#### **6. Human Systems Integration. NA**

### **K. SCHEDULES**

#### **1. Installation and Delivery Schedules**

**a. On-Board Oxygen Generating System.** Retrofit installation of OBOGS into the AV-8B, T-45, F-14D, and F/A-18C/D has been completed. OBOGS is being installed in the F/A-18E/F, T-6A, and MV-22 aircraft during production.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** Delivery and installation of the ABO Contaminant Analyzer was completed in June 1996.

#### **2. Ready For Operational Use Schedule**

**a. On-Board Oxygen Generating System.** OBOGS is considered ready for operational use upon installation in the aircraft.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** The ABO Contaminant Analyzer is ready for operational use upon receipt, check out, and installation at each site.

### **3. Time Required to Install at Operational Sites**

**a. On-Board Oxygen Generating System.** NA

**b. Aviators Breathing Oxygen Contaminant Analyzer.** The time required to install the ABO Contaminant Analyzer is approximately one week.

**4. Foreign Military Sales and Other Source Delivery Schedule.** For information concerning FMS of NAOS equipment contact the program office, NAVAIRSYSCOM PMA202D.

### **5. Training Device and Technical Training Equipment Delivery Schedule**

**a. On-Board Oxygen Generating System.** No Training Devices (TD) are required to support OBOGS Training. TTE required to support OBOGS training is being relocated from NAMTRAU Lemoore to NATTC Pensacola. All required TTE is currently scheduled to be delivered no later than December 2000. TTE requirements are identified in Part IV.A.1 of this NTSP.

**b. Aviators Breathing Oxygen Contaminant Analyzer.** No TDs are required to support ABO Contaminant Analyzer Training. All required TTE is onboard. TTE requirements are identified in Part IV.A.1 of this NTSP.

## **L. GOVERNMENT FURNISHED EQUIPMENT AND CONTRACTOR FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA**

## **M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS**

<b>DOCUMENT OR NTSP TITLE</b>	<b>DOCUMENT OR NTSP NUMBER</b>	<b>PDA CODE</b>	<b>STATUS</b>
Aviation Life Support System	A-50-9206A/D	PMA202	Draft Jun 00
Navy Aircrew Common Ejection Seat	A-50-8517C/D	PMA211	Draft Apr 00
AV-8B Harrier II Plus System	A-50-8210D/D	PMA257	Draft Aug 99



<b>DOCUMENT OR NTSP TITLE</b>	<b>DOCUMENT OR NTSP NUMBER</b>	<b>PDA CODE</b>	<b>STATUS</b>
Naval Aviation Survival Training Program	A-50-9803/D	PMA202	Draft Jun 99
Navy Undergraduate Jet Flight Training System, T-45TS	A-50-8703B/D	PMA273	Draft Feb 95
F-14A/B/D Aircraft	A-50-8511B/A	PMA241	Approved Mar 00
F/A-18 Aircraft	A-50-7703H/D	PMA265	Draft Mar 00
Trailer Mounted Liquid Oxygen/Nitrogen Generating Plant	A-50-9401/A	PMA260	Approved Apr 00
Integrated Logistics Support Plan for the On-Board Oxygen Generating System	AV-ILSP-229	PMA202	Approved Jul 90
Users Logistics Support Summary for the Aviators Breathing Oxygen Contaminant Analyzer	ULSS-91015	PMA260	Approved Nov 95

## **PART II - BILLET AND PERSONNEL REQUIREMENTS**

The following elements are not affected by the NAOS and, therefore, are not included in Part II of this NTSP:

### **II.A. Billet Requirements**

#### **II.A.3. Training Activities Instructor and Support Billet Requirements**

## PART II - BILLET AND PERSONNEL REQUIREMENTS

### II.A. BILLET REQUIREMENTS

#### II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

**SOURCE:** Total Force Manpower Management System

MCCDC Total Manpower Requirements Extract for MOS 6060

**DATE:** 05/01/00

05/16/00

ACTIVITY, UIC		PFYs	CFY01	FY02	FY03	FY04	FY05
OPERATIONAL ACTIVITIES - NAVY							
VFA-106 NAS Oceana	09679	1	0	0	0	0	0
VFA-203 NAS Cecil Field	09030	1	0	0	0	0	0
VAQ-129 NAS Whidbey Island	09995	1	0	0	0	0	0
VFA-125 NAS Lemoore	09485	1	0	0	0	0	0
VFA-201 NAF Fort Worth JRB	09309	1	0	0	0	0	0
VFA-204 NAF Fort Worth JRB	3234A	1	0	0	0	0	0
<b>TOTAL:</b>		6	0	0	0	0	0
OPERATIONAL ACTIVITIES - USMC							
HMM-162 MCAS New River	09492	1	0	0	0	0	0
HMM-261 MCAS New River	09441	1	0	0	0	0	0
HMM-263 MCAS New River	09445	1	0	0	0	0	0
HMM-264 MCAS New River	09374	1	0	0	0	0	0
HMM-266 MCAS New River	53972	1	0	0	0	0	0
HMM-365 MCAS New River	53923	1	0	0	0	0	0
VMA-223 MCAS Cherry Point	09438	1	0	0	0	0	0
VMA-231 MCAS Cherry Point	52948	1	0	0	0	0	0
VMA-542 MCAS Cherry Point	52847	1	0	0	0	0	0
VMAQ-1 MCAS Cherry Point	41345	1	0	0	0	0	0
VMAQ-2 MCAS Cherry Point	42362	1	0	0	0	0	0
VMAQ-3 MCAS Cherry Point	42363	1	0	0	0	0	0
VMAQ-4 MCAS Cherry Point	67837	1	0	0	0	0	0
VMAT-203 MCAS Cherry Point	45483	1	0	0	0	0	0
VMFA(AW)-224 MCAS Beaufort	09439	1	0	0	0	0	0
VMFA(AW)-332 MCAS Beaufort	09501	1	0	0	0	0	0
VMFA(AW)-533 MCAS Beaufort	09193	1	0	0	0	0	0
VMFA-115 MCAS Beaufort	09234	1	0	0	0	0	0
VMFA-122 MCAS Beaufort	09407	1	0	0	0	0	0
VMFA-142 NAS Atlanta	67243	1	0	0	0	0	0
VMFA-251 MCAS Beaufort	09241	1	0	0	0	0	0
VMFA-312 MCAS Beaufort	09253	1	0	0	0	0	0
VMFA-321 Andrews Air Force Base	67235	1	0	0	0	0	0
VMGR-252 MCAS Cherry Point	09387	1	0	0	0	0	0
VMGR-452 NAF Fort Stewart JRB	55215	1	0	0	0	0	0
VMGRT-253 MCAS Cherry Point	55251	1	0	0	0	0	0
VMMT-204 MCAS New River	52842	1	0	0	0	0	0
VMR-1 MCAS Cherry Point	09114	1	0	0	0	0	0
HMM-161 MCAS Miramar	09440	1	0	0	0	0	0
HMM-163 MCAS Miramar	09405	1	0	0	0	0	0
HMM-165 MCAS Miramar	09343	1	0	0	0	0	0
HMM-166 MCAS Miramar	53973	1	0	0	0	0	0

## II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

**SOURCE:** Total Force Manpower Management System  
MCCDC Total Manpower Requirements Extract for MOS 6060

**DATE:** 05/01/00  
05/16/00

ACTIVITY, UIC		PFYs	CFY01	FY02	FY03	FY04	FY05
HMM-262 MCAS Futenma	09442	1	0	0	0	0	0
HMM-265 MCAS Futenma	09404	1	0	0	0	0	0
HMM-268 MCAS Camp Pendleton	52790	1	0	0	0	0	0
HMM-364 MCAS Camp Pendleton	09793	1	0	0	0	0	0
HMM-764 Edwards Air Force Base	09402	1	0	0	0	0	0
Marine Aviation Weapons & Tactics Squadron	55167	1	0	0	0	0	0
VMA-211 MCAS Yuma	09412	1	0	0	0	0	0
VMA-214 MCAS Yuma	09436	1	0	0	0	0	0
VMA-311 MCAS Yuma	09416	1	0	0	0	0	0
VMA-513 MCAS Yuma	09231	1	0	0	0	0	0
VMFA(AW)-121 MCAS Miramar	09257	1	0	0	0	0	0
VMFA(AW)-225 MCAS Miramar	09232	1	0	0	0	0	0
VMFA(AW)-242 MCAS Miramar	09668	1	0	0	0	0	0
VMFA-112 NAF Fort Worth JRB	08954	1	0	0	0	0	0
VMFA-134 MCAS Miramar	09365	1	0	0	0	0	0
VMFA-212 MCAS Iwakuni	09434	1	0	0	0	0	0
VMFA-232 MCAS Miramar	09242	1	0	0	0	0	0
VMFA-314 MCAS Miramar	09230	1	0	0	0	0	0
VMFA-323 MCAS Miramar	09235	1	0	0	0	0	0
VMFAT-101 MCAS Miramar	09965	1	0	0	0	0	0
VMGR-152 MCAS Futenma	09443	1	0	0	0	0	0
VMGR-234 NAF Fort Worth JRB	08344	1	0	0	0	0	0
VMGR-352 Cherry Point	09182	1	0	0	0	0	0
VMR-2 MCAS Miramar	55580	1	0	0	0	0	0
<b>TOTAL:</b>		56	0	0	0	0	0
FLEET SUPPORT ACTIVITIES - NAVY							
AIMD NAS Brunswick	44314	1	0	0	0	0	0
AIMD NAS Jacksonville	44319	1	0	0	0	0	0
AIMD NAS Oceana	44327	1	0	0	0	0	0
AIMD NAS Roosevelt Roads	44373	1	0	0	0	0	0
AIMD NAS Sigonella	44330	1	0	0	0	0	0
AIMD USS Bataan (LHD 5)	21879	1	0	0	0	0	0
AIMD USS Dwight D. Eisenhower (CVN 69)	03369	1	0	0	0	0	0
AIMD USS Enterprise (CVN 65)	03365	1	0	0	0	0	0
AIMD USS George Washington (CVN 73)	21412	1	0	0	0	0	0
AIMD USS Harry S. Truman (CVN 75)	21853	1	0	0	0	0	0
AIMD USS Iwo Jima (LHD 7)	23027	1	0	0	0	0	0
AIMD USS John F. Kennedy (CV 67)	03367	1	0	0	0	0	0
AIMD USS Kearsarge (LHD 3)	21700	1	0	0	0	0	0
AIMD USS Nassau (LHA 4)	20725	1	0	0	0	0	0
AIMD USS Ronald Reagan (CVN 76)	22178	0	0	1	0	0	0
AIMD USS Saipan (LHA 2)	20632	1	0	0	0	0	0
AIMD USS Theodore Roosevelt (CVN 71)	21247	1	0	0	0	0	0
AIMD USS Wasp (LHD 1)	21560	1	0	0	0	0	0
COMHSWINGLANT WTU	48097	1	0	0	0	0	0

COMSEACONWINGLANT WTU

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## II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

**SOURCE:** Total Force Manpower Management System  
MCCDC Total Manpower Requirements Extract for MOS 6060

**DATE:** 05/01/00  
05/16/00

ACTIVITY, UIC		PFYs	CFY01	FY02	FY03	FY04	FY05
NAVSCOLSCOM NAS Pensacola	62229	1	0	0	0	0	0
NAVTEST WINGLANT NAS Patuxent River	39782	1	0	0	0	0	0
Reserve AIMD NAF Washington D.C.	44492	0	1	0	0	0	0
Reserve AIMD NAS Willow Grove	44493	1	0	0	0	0	0
Sea OP DET MCAS Beaufort	46961	1	0	0	0	0	0
Sea OP DET NAS Jacksonville	46965	1	0	0	0	0	0
Sea OP DET NAS Oceana	46963	1	0	0	0	0	0
AIMD MCBH Kaneohe Bay	44312	1	0	0	0	0	0
AIMD NAF Atsugi	44323	1	0	0	0	0	0
AIMD NAF Misawa	44331	1	0	0	0	0	0
AIMD NAS Corpus Christi	30244	1	0	0	0	0	0
AIMD NAS Lemoore	44321	1	0	0	0	0	0
AIMD NAS North Island	44326	1	0	0	0	0	0
AIMD NAS Whidbey Island	44329	1	0	0	0	0	0
AIMD USS Belleau Wood (LHA 3)	20633	1	0	0	0	0	0
AIMD USS Bonhomme Richard (LHD 6)	22202	1	0	0	0	0	0
AIMD USS Boxer (LHD 4)	21808	1	0	0	0	0	0
AIMD USS Constellation (CV 64)	03364	1	0	0	0	0	0
AIMD USS Essex (LHD 2)	21533	1	0	0	0	0	0
AIMD USS John C. Stennis (CVN 74)	21847	1	0	0	0	0	0
AIMD USS Kitty Hawk (CV 63)	03363	1	0	0	0	0	0
AIMD USS Abraham Lincoln (CVN 72)	21297	1	0	0	0	0	0
AIMD USS Nimitz (CVN 68)	03368	1	0	0	0	0	0
AIMD USS Peleliu (LHA 5)	20748	1	0	0	0	0	0
AIMD USS Tarawa (LHA 1)	20550	1	0	0	0	0	0
AIMD USS Carl Vinson (CVN 70)	20993	1	0	0	0	0	0
Aircraft OP DET China Lake	47677	1	0	0	0	0	0
COMFAIR WESTPAC	09356	1	0	0	0	0	0
Naval Weapons Test Squadron China Lake	39787	1	0	0	0	0	0
Navy Fighter Weapons School Fallon	52912	1	0	0	0	0	0
Reserve AIMD NAS Moffett Field	44489	1	0	0	0	0	0
Sea OP DET NAS Lemoore	46964	1	0	0	0	0	0
Sea OP DET NAS North Island	46968	1	0	0	0	0	0
Van OP DET NAS Whidbey Island	31179	1	0	0	0	0	0
<b>TOTAL:</b>		53	0	1	0	0	0
FLEET SUPPORT ACTIVITIES - USMC							
2nd MAW Headquarters Cherry Point	00201	1	0	0	0	0	0
4th MAW Headquarters NSA New Orleans	67811	1	0	0	0	0	0
Aircraft Operational Test & Evaluation Support	33294	0	1	0	0	0	0
H&HS MCAS Beaufort	02031	1	0	0	0	0	0
H&HS NADEP MCAS Cherry Point	02002	1	0	0	0	0	0
MALS-14 MCAS Cherry Point	09114	1	0	0	0	0	0
MALS-26 MCAS New River	09167	1	0	0	0	0	0
MALS-31 MCAS Beaufort	09131	1	0	0	0	0	0
MATSG Pensacola	67389	1	0	0	0	0	0
1st MAW Headquarters Camp Butler	46151	1	0	0	0	0	0

## II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

**SOURCE:** Total Force Manpower Management System  
MCCDC Total Manpower Requirements Extract for MOS 6060

**DATE:** 05/01/00  
05/16/00

ACTIVITY, UIC		PFYs	CFY01	FY02	FY03	FY04	FY05
3rd MAW Headquarters MCAS Miramar	46623	1	0	0	0	0	0
H&HS MCAS Iwakuni	57079	1	0	0	0	0	0
H&HS MCAS Yuma	02230	1	0	0	0	0	0
MALS-11 MCAS Miramar	09111	1	0	0	0	0	0
MALS-12 MCAS Iwakuni	09112	1	0	0	0	0	0
MALS-13 MCAS Yuma	57082	1	0	0	0	0	0
MALS-16 MCAS Miramar	55583	1	0	0	0	0	0
MALS-36 MCAS Futenma	09136	1	0	0	0	0	0
MALS-41 NAF Fort Worth, JRB	03007	1	0	0	0	0	0
MALS-46 MCAS Miramar	03028	1	0	0	0	0	0
<b>TOTAL:</b>		19	1	0	0	0	0

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
OPERATIONAL ACTIVITIES - NAVY					
VFA-106 NAS Oceana, 09679					
USMC	0	2	CPL	6060	
	0	1	GYSGT	6060	
	0	1	LCPL	6060	
ACTIVITY TOTAL:	0	4			
VFA-203 NAS Cecil Field, 09030					
SELRES	0	1	PR3	7356	
ACTIVITY TOTAL:	0	1			
VAQ-129 NAS Whidbey Island, 09995					
USMC	0	3	CPL	6060	
ACTIVITY TOTAL:	0	3			
VFA-125 NAS Lemoore, 09485					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
ACTIVITY TOTAL:	0	4			
VFA-201 NAF Fort Worth JRB, 09309					
SELRES	0	1	PR3	7356	
ACTIVITY TOTAL:	0	1			
VFA-204 NAF Fort Worth JRB, 3234A					
SELRES	0	1	PR3	7356	
ACTIVITY TOTAL:	0	1			
OPERATIONAL ACTIVITIES - USMC					
HMM-261 MCAS New River, 09441					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
ACTIVITY TOTAL:	0	5			



## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>HMM-263 MCAS New River, 09445</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-264 MCAS New River, 09374</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-266 MCAS New River, 53972</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-365 MCAS New River, 53923</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMA-223 MCAS Cherry Point, 09438</b>					
USMC	0	2	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	9			
<b>VMA-231 MCAS Cherry Point, 52948</b>					
USMC	0	2	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	9			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>VMA-542 MCAS Cherry Point, 52847</b>					
USMC	0	2	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	9			
<b>VMAQ-1 MCAS Cherry Point, 41345</b>					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	10			
<b>VMAQ-2 MCAS Cherry Point, 42362</b>					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	10			
<b>VMAQ-3 MCAS Cherry Point, 42363</b>					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	10			
<b>VMAQ-4 MCAS Cherry Point, 67837</b>					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	10			
<b>VMAT-203 MCAS Cherry Point, 45483</b>					
USMC	0	2	CPL	6060	
	0	1	GYSGT	6060	
	0	7	LCPL	6060	
	0	5	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	16			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>VMFA(AW)-224 MCAS Beaufort, 09439</b>					
USMC	0	1	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	8			
<b>VMFA(AW)-332 MCAS Beaufort, 09501</b>					
USMC	0	1	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	8			
<b>VMFA(AW)-533 MCAS Beaufort, 09193</b>					
USMC	0	1	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	8			
<b>VMFA-115 MCAS Beaufort, 09234</b>					
USMC	0	3	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMFA-122 MCAS Beaufort, 09407</b>					
USMC	0	3	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMFA-142 NAS Atlanta, 67243</b>					
USMC	0	2	LCPL	6060	
	0	1	SSGT	6060	
SMCR	0	1	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>VMFA-251 MCAS Beaufort, 09241</b>					
USMC	0	1	CPL	6060	
	0	3	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	6			
<b>VMFA-312 MCAS Beaufort, 09253</b>					
USMC	0	1	CPL	6060	
	0	3	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	6			
<b>VMFA-321 Andrews Air Force Base, 67235</b>					
USMC	0	2	LCPL	6060	
	0	1	SSGT	6060	
SMCR	0	1	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMGR-252 MCAS Cherry Point, 09387</b>					
USMC	0	3	CPL	6060	
	0	1	LCPL	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMGR-452 NAF Fort Stewart JRB, 55215</b>					
USMC	0	4	CPL	6060	
	0	2	LCPL	6060	
	0	2	SSGT	6060	
AR	0	1	CPL	6060	
SMCR	0	1	CPL	6060	
<b>ACTIVITY TOTAL:</b>	0	10			
<b>VMGRT-253 MCAS Cherry Point, 55251</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	1	LCPL	6060	
	0	1	SGT	6060	

ACTIVITY TOTAL:

0 4

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>VMMT-204 MCAS New River, 52842</b>					
USMC	0	2	CPL	6060	
	0	1	GYSGT	6060	
	0	3	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	7			
<b>VMR-1 MCAS Cherry Point, 09114</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	2			
<b>HMM-161 MCAS Miramar, 09440</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-163 MCAS Miramar, 09405</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-165 MCAS Miramar, 09343</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-166 MCAS Miramar, 53973</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>HMM-262 MCAS Futenma, 09442</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-265 MCAS Futenma, 09404</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-268 MCAS Camp Pendleton, 52790</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-364 MCAS Camp Pendleton, 09793</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	2	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>HMM-764 Edwards Air Force Base, 09402</b>					
USMC	0	1	GYSGT	6060	
	0	1	LCPL	6060	
	0	1	SGT	6060	
AR	0	1	CPL	6060	
SMCR	0	1	LCPL	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>Marine Aviation Weapons &amp; Tactics Squadron, 55167</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
	0	3	LCPL	6060	
<b>ACTIVITY TOTAL:</b>	0	5			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>VMA-211 MCAS Yuma, 09412</b>					
USMC	0	2	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	9			
<b>VMA-214 MCAS Yuma, 09436</b>					
USMC	0	2	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	9			
<b>VMA-311 MCAS Yuma, 09416</b>					
USMC	0	2	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	9			
<b>VMA-513 MCAS Yuma, 09231</b>					
USMC	0	2	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	9			
<b>VMFA(AW)-121 MCAS Miramar, 09257</b>					
USMC	0	1	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	8			
<b>VMFA(AW)-225 MCAS Miramar, 09232</b>					
USMC	0	1	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	8			



## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>VMFA(AW)-242 MCAS Miramar, 09668</b>					
USMC	0	1	CPL	6060	
	0	4	LCPL	6060	
	0	2	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	8			
<b>VMFA-112 NAF Fort Worth JRB, 08954</b>					
USMC	0	2	LCPL	6060	
	0	1	SSGT	6060	
SMCR	0	1	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMFA-134 MCAS Miramar, 09365</b>					
USMC	0	2	LCPL	6060	
	0	1	SSGT	6060	
SMCR	0	1	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMFA-212 MCAS Iwakuni, 09434</b>					
USMC	0	3	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMFA-232 MCAS Miramar, 09242</b>					
USMC	0	3	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMFA-314 MCAS Miramar, 09230</b>					
USMC	0	1	CPL	6060	
	0	3	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	6			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>VMFA-323 MCAS Miramar, 09235</b>					
USMC	0	1	CPL	6060	
	0	3	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	6			
<b>VMFAT-101 MCAS Miramar, 09965</b>					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
	0	5	LCPL	6060	
	0	1	SGT	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	11			
<b>VMGR-152 MCAS Futenma, 09443</b>					
USMC	0	3	CPL	6060	
	0	1	LCPL	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMGR-234 NAF Fort Worth JRB, 08344</b>					
USMC	0	4	CPL	6060	
	0	2	LCPL	6060	
	0	2	SSGT	6060	
AR	0	1	CPL	6060	
SMCR	0	1	CPL	6060	
<b>ACTIVITY TOTAL:</b>	0	10			
<b>VMGR-352 Cherry Point, 09182</b>					
USMC	0	3	CPL	6060	
	0	1	LCPL	6060	
	0	1	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	5			
<b>VMR-2 MCAS Miramar, 55580</b>					
USMC	0	1	LCPL	6060	
	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	2			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
FLEET SUPPORT ACTIVITIES - NAVY					
AIMD NAS Brunswick, 44314					
ACDU	0	1	PR1	7356	
	0	1	PR2	7356	
	0	1	PR3	7356	
ACTIVITY TOTAL:	0	3			
AIMD NAS Jacksonville, 44319					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
	0	3	PR3	7356	
ACTIVITY TOTAL:	0	6			
AIMD NAS Oceana, 44327					
ACDU	0	2	PR1	7356	
	0	4	PR2	7356	
	0	3	PR3	7356	
ACTIVITY TOTAL:	0	9			
AIMD NAS Roosevelt Roads, 44373					
ACDU	0	2	PR1	7356	
	0	2	PR2	7356	
ACTIVITY TOTAL:	0	4			
AIMD NAS Sigonella, 44330					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
ACTIVITY TOTAL:	0	3			
AIMD USS Bataan (LHD 5), 21879					
ACDU	0	1	PR2	7356	
ACTIVITY TOTAL:	0	1			
AIMD USS Dwight D. Eisenhower (CVN 69), 03369					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
ACTIVITY TOTAL:	0	3			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
AIMD USS Enterprise (CVN 65), 03365					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
ACTIVITY TOTAL:	0	3			
AIMD USS George Washington (CVN 73), 21412					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
ACTIVITY TOTAL:	0	3			
AIMD USS Harry S. Truman (CVN 75), 21853, FY98 Increment					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
ACTIVITY TOTAL:	0	3			
AIMD USS Iwo Jima (LHD 7), 23027, FY00 Increment					
ACDU	0	1	PR2	7356	
ACTIVITY TOTAL:	0	1			
AIMD USS John F. Kennedy (CV 67), 03367					
ACDU	0	1	PR1	7356	
	0	1	PR2	7356	
TAR	0	1	PR2	7356	
AIMD USS John F. Kennedy (CV 67), 03367, FY01 Increment					
ACDU	0	1	PR2	7356	
ACTIVITY TOTAL:	0	4			
AIMD USS Kearsarge (LHD 3), 21700					
ACDU	0	1	PR2	7356	
ACTIVITY TOTAL:	0	1			
AIMD USS Nassau (LHA 4), 20725					
ACDU	0	1	PR2	7356	
ACTIVITY TOTAL:	0	1			
AIMD USS Ronald Reagan (CVN 76), 22178, FY02 Increment					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
ACTIVITY TOTAL:	0	3			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>AIMD USS Saipan (LHA 2), 20632</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>AIMD USS Theodore Roosevelt (CVN 71), 21247</b>					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	3			
<b>AIMD USS Wasp (LHD 1), 21560</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>COMHSWINGLANT WTU, 48097</b>					
ACDU	0	1	PR1	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>COMSEACONWINGLANT WTU, 47989</b>					
ACDU	0	1	PR1	7356	
	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	2			
<b>NAVSCOLSCOM NAS Pensacola, 62229</b>					
ACDU	0	1	PR1	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>NAVTEST WINGLANT NAS Patuxent River, 39782</b>					
ACDU	0	1	PR1	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>Reserve AIMD NAF Washington D.C., 44492, FY00 Increment</b>					
TAR	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>Reserve AIMD NAS Willow Grove, 44493</b>					
TAR	0	1	PR1	7356	
	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	2			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
Sea OP DET MCAS Beaufort, 46961					
ACDU	0	1	PR3	7356	
ACTIVITY TOTAL:	0	1			
Sea OP DET NAS Jacksonville, 46965					
ACDU	0	5	PR3	7356	
ACTIVITY TOTAL:	0	5			
Sea OP DET NAS Oceana, 46963					
ACDU	0	3	PR3	7356	
ACTIVITY TOTAL:	0	3			
AIMD MCBH Kaneohe Bay, 44312					
ACDU	0	2	PR1	7356	
	0	11	PR2	7356	
ACTIVITY TOTAL:	0	13			
AIMD NAF Atsugi, 44323					
ACDU	0	2	PR1	7356	
	0	1	PR2	7356	
ACTIVITY TOTAL:	0	3			
AIMD NAF Misawa, 44331					
ACDU	0	2	PR1	7356	
	0	1	PR2	7356	
ACTIVITY TOTAL:	0	3			
AIMD NAS Corpus Christi, 30244					
ACDU	0	1	PR1	7356	
	0	1	PR2	7356	
ACTIVITY TOTAL:	0	2			
AIMD NAS Lemoore, 44321					
ACDU	0	2	PR1	7356	
	0	4	PR2	7356	
	0	1	PR3	7356	
AIMD NAS Lemoore, 44321, FY02 Increment					
ACDU	0	1	PR3	7356	

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>AIMD NAS Lemoore, 44321, FY03 Increment</b>					
ACDU	0	1	PR1	7356	
	0	3	PR3	7356	
<b>ACTIVITY TOTAL:</b>	0	12			
<b>AIMD NAS North Island, 44326</b>					
ACDU	0	3	PR1	7356	
	0	4	PR2	7356	
	0	1	PR2	7356	9590
<b>ACTIVITY TOTAL:</b>	0	8			
<b>AIMD NAS Whidbey Island, 44329</b>					
ACDU	0	2	PR1	7356	
	0	5	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	7			
<b>AIMD USS Belleau Wood (LHA 3), 20633</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>AIMD USS Bonhomme Richard (LHD 6), 22202</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>AIMD USS Boxer (LHD 4), 21808</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>AIMD USS Constellation (CV 64), 03364</b>					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	3			
<b>AIMD USS Essex (LHD 2), 21533</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>AIMD USS John C. Stennis (CVN 74), 21847</b>					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	

ACTIVITY TOTAL:

0 3



## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>AIMD USS Kitty Hawk (CV 63), 03363</b>					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	3			
<b>AIMD USS Abraham Lincoln (CVN 72), 21297</b>					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	3			
<b>AIMD USS Nimitz (CVN 68), 03368</b>					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	3			
<b>AIMD USS Peleliu (LHA 5), 20748</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>AIMD USS Tarawa (LHA 1), 20550</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>AIMD USS Carl Vinson (CVN 70), 20993</b>					
ACDU	0	1	PR1	7356	
	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	2			
<b>Aircraft OP DET China Lake, 47677</b>					
ACDU	0	1	PR2	7356	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>COMFAIR WESTPAC, 09356</b>					
SELRES	0	1	PR1	7356	
<b>ACTIVITY TOTAL:</b>	0	1			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
Naval Weapons Test Squadron China Lake, 39787					
ACDU	0	1	PR1	7356	
	0	3	PR2	7356	
ACTIVITY TOTAL:	0	4			
Navy Fighter Weapons School Fallon, 52912					
USMC	0	1	SGT	6060	
ACTIVITY TOTAL:	0	1			
Reserve AIMD NAS Moffett Field, 44489					
SELRES	0	1	PR1	7356	
	0	1	PR2	7356	
ACTIVITY TOTAL:	0	2			
Sea OP DET NAS Lemoore, 46964					
ACDU	0	3	PR3	7356	
ACTIVITY TOTAL:	0	3			
Sea OP DET NAS North Island, 46968					
ACDU	0	3	PR3	7356	
ACTIVITY TOTAL:	0	3			
Van OP DET NAS Whidbey Island, 31179					
ACDU	0	1	PR1	7356	
	0	2	PR2	7356	
USMC	0	5	SSGT	6060	
ACTIVITY TOTAL:	0	8			
FLEET SUPPORT ACTIVITIES - USMC					
2nd MAW Headquarters Cherry Point, 00201					
USMC	0	1	GYSGT	6060	
ACTIVITY TOTAL:	0	1			
4th MAW Headquarters NSA New Orleans, 67811					
AR	0	1	GYSGT	6060	
ACTIVITY TOTAL:	0	1			
ACFT Operational Test & Evaluation Support, 33294, FY01 Increment					
USMC	0	1	SSGT	6060	

ACTIVITY TOTAL:

0 1

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>H&amp;HS MCAS Beaufort, 02031</b>					
USMC	0	1	CPL	6060	
	0	1	GYSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	2			
<b>H&amp;HS NADEP MCAS Cherry Point, 02002</b>					
USMC	0	1	CPL	6060	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>MALS-14 MCAS Cherry Point, 09114</b>					
USMC	0	2	GYSGT	6060	
	0	11	LCPL	6060	
	0	3	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	18			
<b>MALS-26 MCAS New River, 09167</b>					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
	0	5	LCPL	6060	
	0	3	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	14			
<b>MALS-31 MCAS Beaufort, 09131</b>					
USMC	0	2	GYSGT	6060	
	0	11	LCPL	6060	
	0	3	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	18			
<b>MATSG Pensacola, 67389</b>					
USMC	0	3	GYSGT	6060	
	0	3	SGT	6060	
	0	4	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	10			
<b>1st MAW Headquarters Camp Butler, 46151, FY01 Increment</b>					
USMC	0	1	GYSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	1			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>3rd MAW Headquarters MCAS Miramar, 46623</b>					
USMC	0	1	GYSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>H&amp;HS MCAS Iwakuni, 57079</b>					
USMC	0	1	GYSGT	6060	
	0	1	LCPL	6060	
<b>ACTIVITY TOTAL:</b>	0	2			
<b>H&amp;HS MCAS Yuma, 02230</b>					
USMC	0	1	LCPL	6060	
USMC	0	1	SGT	6060	
<b>ACTIVITY TOTAL:</b>	0	2			
<b>MALS-11 MCAS Miramar, 09111</b>					
USMC	0	2	GYSGT	6060	
	0	11	LCPL	6060	
	0	3	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	18			
<b>MALS-12 MCAS Iwakuni, 09112</b>					
USMC	0	2	GYSGT	6060	
	0	11	LCPL	6060	
	0	3	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	18			
<b>MALS-13 MCAS Yuma, 57082</b>					
USMC	0	2	GYSGT	6060	
	0	11	LCPL	6060	
	0	3	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	18			

## II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>MALS-16 MCAS Miramar, 55583</b>					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
	0	5	LCPL	6060	
	0	3	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	14			
<b>MALS-36 MCAS Futenma, 09136</b>					
USMC	0	3	CPL	6060	
	0	1	GYSGT	6060	
	0	5	LCPL	6060	
	0	3	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	14			
<b>MALS-41 (FW) NAF Fort Worth, JRB, 03007</b>					
USMC	0	1	SGT	6060	
SMCR	0	2	GYSGT	6060	
	0	11	LCPL	6060	
	0	2	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	18			
<b>MALS-46 (FW) MCAS Miramar, 03028</b>					
USMC	0	1	SGT	6060	
SMCR	0	2	GYSGT	6060	
	0	11	LCPL	6060	
	0	2	SGT	6060	
	0	2	SSGT	6060	
<b>ACTIVITY TOTAL:</b>	0	18			

## II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF ENL	CFY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL	FY04 OFF ENL	FY05 OFF ENL
NAVY OPERATIONAL ACTIVITIES - SELRES							
PR3	7356	3	0	0	0	0	0
NAVY OPERATIONAL ACTIVITIES - USMC							
CPL	6060	8	0	0	0	0	0
GYSGT	6060	2	0	0	0	0	0
LCPL	6060	1	0	0	0	0	0
USMC OPERATIONAL ACTIVITIES - USMC							
CPL	6060	76	0	0	0	0	0
GYSGT	6060	24	0	0	0	0	0
LCPL	6060	154	0	0	0	0	0
SGT	6060	65	0	0	0	0	0
SSGT	6060	34	0	0	0	0	0
USMC OPERATIONAL ACTIVITIES - AR							
CPL	6060	3	0	0	0	0	0
USMC OPERATIONAL ACTIVITIES - SMCR							
CPL	6060	2	0	0	0	0	0
LCPL	6060	5	0	0	0	0	0
SGT	6060	4	0	0	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - ACDU							
PR1	7356	39	0	1	1	0	0
PR2	7356	79	1	2	0	0	0
PR2	7356 9590	1	0	0	0	0	0
PR3	7356	23	0	1	3	0	0
NAVY FLEET SUPPORT ACTIVITIES - TAR							
PR1	7356	1	0	0	0	0	0
PR2	7356	3	0	0	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - SELRES							
PR1	7356	2	0	0	0	0	0
PR2	7356	1	0	0	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - USMC							
SGT	6060	1	0	0	0	0	0
SSGT	6060	5	0	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - USMC							
CPL	6060	11	0	0	0	0	0
GYSGT	6060	20	1	0	0	0	0
LCPL	6060	72	0	0	0	0	0
SGT	6060	30	0	0	0	0	0

## II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF ENL	CFY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL	FY04 OFF ENL	FY05 OFF ENL
SSGT	6060	20	1	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - AR							
GYSGT	6060	2	0	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - SMCR							
CPL	6060	6	0	0	0	0	0
GYSGT	6060	5	0	0	0	0	0
LCPL	6060	32	0	0	0	0	0
SGT	6060	8	0	0	0	0	0
SSGT	6060	7	0	0	0	0	0



## II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF ENL	CFY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL	FY04 OFF ENL	FY05 OFF ENL
<b>SUMMARY TOTALS:</b>							
NAVY OPERATIONAL ACTIVITIES - SELRES							
	3		0	0	0	0	0
NAVY OPERATIONAL ACTIVITIES - USMC							
	11		0	0	0	0	0
USMC OPERATIONAL ACTIVITIES - USMC							
	353		0	0	0	0	0
USMC OPERATIONAL ACTIVITIES - AR							
	3		0	0	0	0	0
USMC OPERATIONAL ACTIVITIES - SMCR							
	11		0	0	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - ACDU							
	142		1	4	4	0	0
NAVY FLEET SUPPORT ACTIVITIES - TAR							
	3		1	0	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - SELRES							
	3		0	0	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - USMC							
	6		0	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - USMC							
	188		2	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - AR							
	1		0	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - SMCR							
	34		0	0	0	0	0

## II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY01		FY02		FY03		FY04		FY05	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
GRAND TOTALS:													
NAVY - ACDU			142		1		4		4		0		0
NAVY - TAR			4		0		0		0		0		0
NAVY - SELRES			6		0		0		0		0		0
NAVY - USMC			17		0		0		0		0		0
USMC - USMC			506		2		0		0		0		0
USMC - AR			4		0		0		0		0		0
USMC - SMCR			45		0		0		0		0		0

## II.A.2.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY DEACTIVATION SCHEDULE

**SOURCE:** Total Force Manpower Management System

MCCDC Total Manpower Requirements Extract for MOS 6060

**DATE:** 05/01/00

05/16/00

ACTIVITY, UIC	PFYs	CFY01	FY02	FY03	FY04	FY05
FLEET SUPPORT ACTIVITIES - NAVY						
AIMD USS Constellation (CV 64) 03364	0	0	1	0	0	0
<b>TOTAL:</b>	0	0	1	0	0	0

## II.A.2.b. BILLETS TO BE DELETED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
OPERATIONAL ACTIVITIES - USMC					
VMMT-204 MCAS New River, 52842, FY02 Increment					
USMC	0	1	SGT	6060	
ACTIVITY TOTAL:	0	1			
FLEET SUPPORT ACTIVITIES - NAVY					
AIMD USS John F. Kennedy (CV 67), 03367, FY01 Increment					
TAR	0	1	PR2	7356	
ACTIVITY TOTAL:	0	1			
FLEET SUPPORT ACTIVITIES - USMC					
MALS-46 (FW) MCAS Miramar, 03028, FY01 Increment					
USMC	0	1	SGT	6060	
SMCR	0	2	GYSGT	6060	
	0	11	LCPL	6060	
	0	2	SGT	6060	
	0	2	SSGT	6060	
ACTIVITY TOTAL:	0	18			

## II.A.2.c. TOTAL BILLETS TO BE DELETED IN OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF ENL	CFY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL	FY04 OFF ENL	FY05 OFF ENL
USMC OPERATIONAL ACTIVITIES - USMC							
SGT	6060	1	0	-1	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - ACDU							
PR1	7356	1	0	-1	0	0	0
PR2	7356	2	0	-2	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - TAR							
PR2	7356	1	-1	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - USMC							
SGT	6060	1	-1	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - SMCR							
GYSGT	6060	2	-2	0	0	0	0
LCPL	6060	11	-11	0	0	0	0
SGT	6060	2	-2	0	0	0	0
SSGT	6060	2	-2	0	0	0	0

### SUMMARY TOTALS:

USMC OPERATIONAL ACTIVITIES - USMC		1	0	-1	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - ACDU		3	0	-3	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - TAR		1	-1	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - USMC		1	-1	0	0	0	0
USMC FLEET SUPPORT ACTIVITIES - SMCR		17	-17	0	0	0	0

### GRAND TOTALS:

NAVY - ACDU		3	0	-3	0	0	0
NAVY - TAR		1	-1	0	0	0	0

## II.A.2.c. TOTAL BILLETS TO BE DELETED IN OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY01		FY02		FY03		FY04		FY05	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
USMC - USMC			2		-1		-1		0		0		0
USMC - SMCR			17		-17		0		0		0		0

#### II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs OFF ENL	CFY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL	FY04 OFF ENL	FY05 OFF ENL
NATTC Pensacola, NAS Pensacola, Florida, 63093							
	NAVY	7.7	7.5	7.5	8.0	7.5	7.5
	USMC	18.1	18.3	18.1	18.1	18.1	18.1

#### SUMMARY TOTALS:

NAVY	7.7	7.5	7.5	8.0	7.5	7.5
USMC	18.1	18.3	18.1	18.1	18.1	18.1

#### GRAND TOTALS:

25.8	25.8	25.6	26.1	25.6	25.6
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## II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY01 +/- CUM	FY02 +/- CUM	FY03 +/- CUM	FY04 +/- CUM	FY05 +/- CUM
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a. OFFICER - USN Not Applicable

### b. ENLISTED - USN

Fleet Support Billets ACDU and TAR

PR1	7356		40	0	40	0	40	1	41	0	41	0	41
PR2	7356		82	0	82	0	82	0	82	0	82	0	82
PR2	7356	9590	1	0	1	0	1	0	1	0	1	0	1
PR3	7356		23	0	23	1	24	3	27	0	27	0	27

Chargeable Student Billets ACDU and TAR

8	0	8	0	8	0	8	0	8	0	8	0	8
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SELRES Billets

PR1	7356		2	0	2	0	2	0	2	0	2	0	2
PR2	7356		1	0	1	0	1	0	1	0	1	0	1
PR3	7356		3	0	3	0	3	0	3	0	3	0	3

### TOTAL USN ENLISTED BILLETS:

Fleet Support			146	0	146	1	147	4	151	0	151	0	151
Chargeable Student			8	0	8	0	8	0	8	0	8	0	8
SELRES			6	0	6	0	6	0	6	0	6	0	6

c. OFFICER - USMC Not Applicable

### d. ENLISTED - USMC

Operational Billets USMC and AR

CPL	6060		87	0	87	0	87	0	87	0	87	0	87
GYSGT	6060		26	0	26	0	26	0	26	0	26	0	26
LCPL	6060		155	0	155	0	155	0	155	0	155	0	155
SGT	6060		65	0	65	-1	64	0	64	0	64	0	64
SSGT	6060		34	0	34	0	34	0	34	0	34	0	34

Fleet Support Billets USMC and AR

CPL	6060		11	0	11	0	11	0	11	0	11	0	11
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## II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY01 +/- CUM	FY02 +/- CUM	FY03 +/- CUM	FY04 +/- CUM	FY05 +/- CUM
GYSGT	6060		21	1 22	0 22	0 22	0 22	0 22
LCPL	6060		72	0 72	0 72	0 72	0 72	0 72
SGT	6060		31	-1 30	0 30	0 30	0 30	0 30
SSGT	6060		25	1 26	0 26	0 26	0 26	0 26

Chargeable Student Billets USMC and AR

18	0	18	0	18	0	18	0	18	0	18
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SMCR Billets

CPL	6060		2	0 2	0 2	0 2	0 2	0 2
GYSGT	6060		4	-2 2	0 2	0 2	0 2	0 2
LCPL	6060		27	-11 16	0 16	0 16	0 16	0 16
SGT	6060		8	-2 6	0 6	0 6	0 6	0 6
SSGT	6060		4	-2 2	0 2	0 2	0 2	0 2

### TOTAL USMC ENLISTED BILLETS:

Operational			367	0 367	-1 366		366	0 366	0 366
Fleet Support			160	1 161	0 161	0 161	0 161	0 161	0 161
Chargeable Student			18	0 18	0 18	0 18	0 18	0 18	0 18
SMCR			69	-17 52	0 52	0 52	0 52	0 52	0 52

## II.B. PERSONNEL REQUIREMENTS

### II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

**CIN, COURSE TITLE:** C-602-2040, Aircrew Survival Equipment Intermediate Maintenance Pipeline

**COURSE LENGTH:** 8.0 Weeks

**NAVY TOUR LENGTH:** 36 Months

**ATTRITION FACTOR:** Navy: 10% USMC: 0%

**BACKOUT FACTOR:** 0.16

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY01 OFF ENL	FY02 OFF ENL	FY03 OFF ENL	FY04 OFF ENL	FY05 OFF ENL
NATTC Pensacola, NAS Pensacola, Florida							
	NAVY	ACDU		53	53	56	53
		TAR		1	1	1	1
		SELRES		1	1	1	1
	USMC	USMC		123	122	122	122
		AR		1	1	1	1
		SMCR		3	3	3	3
		TOTAL:		182	181	184	181

## **PART III - TRAINING REQUIREMENTS**

The following elements are not affected by the NAOS and, therefore, are not included in Part III of this NTSP:

III.A.1. Initial Training Requirements

III.A.2. Follow-on Training

III.A.2.b. Planned Courses

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

### III.A.2. FOLLOW-ON TRAINING

#### III.A.2.a. EXISTING COURSES

**CIN, COURSE TITLE:** C-602-2040, Aircrew Survival Equipment Intermediate Maintenance Pipeline

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** NAS Pensacola, Florida, 63093

**SOURCE:** NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY01		FY02		FY03		FY04		FY05		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	54		54		57		54		54	ATIR
	49		49		51		49		49	Output
	7.5		7.5		8.0		7.5		7.5	AOB
	7.5		7.5		8.0		7.5		7.5	Chargeable

**SOURCE:** NAVY **STUDENT CATEGORY:** SELRES

CFY01		FY02		FY03		FY04		FY05		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	1		1		1		1		1	ATIR
	1		1		1		1		1	Output
	0.1		0.1		0.1		0.1		0.1	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

**SOURCE:** USMC **STUDENT CATEGORY:** USMC - AR

CFY01		FY02		FY03		FY04		FY05		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	124		123		123		123		123	ATIR
	124		123		123		123		123	Output
	18.3		18.1		18.1		18.1		18.1	AOB
	18.3		18.1		18.1		18.1		18.1	Chargeable

**SOURCE:** USMC **STUDENT CATEGORY:** SMCR

CFY01		FY02		FY03		FY04		FY05		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	3		3		3		3		3	ATIR
	3		3		3		3		3	Output
	0.4		0.4		0.4		0.4		0.4	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

## **PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS**

The following elements are not affected by the NAOS and, therefore, are not included in Part IV of this NTSP:

IV.A. Training Hardware

IV.A.2. Training Devices

IV.B.1. Training Services

IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.3. Facility Project Summary by Program

#### IV.A. TRAINING HARDWARE

##### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

**CIN, COURSE TITLE:** C-670-2018, Aviator's Breathing Oxygen (ABO) Test Site Operator/Analyst (Track C-602-2040)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** NAS Pensacola, Florida, 63093

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
<b>TTE</b>					
013	Liquid Oxygen Servicing Trailer, 3655-00-158-0657	1	Dec 96	GFE	Onboard
014	Nicolet Oxygen Analyzer	3	Dec 96	GFE	Onboard
<b>GPTE</b>					
022	Pressure Gage, 0-200 PSI	2	Dec 96	GFE	Onboard

**CIN, COURSE TITLE:** C-602-2028, LOX Converter Test Stand/LOX Converter and SKU Repair/ OBOGS Component Repair (Track C-602-2040)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** NAS Pensacola, Florida, 63093

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
<b>TTE</b>					
002	Liquid Oxygen Converter Test Stand, 59A-12D	10	Dec 96	GFE	Onboard
003	Liquid Oxygen Converter, CGU-24/A	15	Dec 96	GFE	Onboard
004	Seat Survival Kit, SKU-2	15	Dec 96	GFE	Onboard
060	Converter, LOX, C/W 219073-C1A	2	Dec 96	GFE	Onboard
061	Converter, LOX, C/W 1DC-0016-1D	2	Dec 96	GFE	Onboard
062	Converter, C/W 29044-1A1A	1	Dec 96	GFE	Onboard
063	Valve Assembly Comb, 43900-3	29	Dec 96	GFE	Onboard
065	Converter, LOX, 10C-0016-10	27	Dec 96	GFE	Onboard
066	Reducer Assembly, 216D800-1	12	Dec 96	GFE	Onboard
067	Lid Assembly, 221S200-101	10	Dec 96	GFE	Onboard
068	Hose Assembly, 33D1341-5	3	Dec 96	GFE	Onboard
069	Flowmeter, Cal Kit (IT-69), 59A120D9	10	Dec 96	GFE	Onboard
070	Pressure Gauge, Cal Kit (IT-69), 59A120-D4	10	Dec 96	GFE	Onboard
071	Regulator, OXY, 283028-0001	3	Dec 96	GFE	Onboard

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

072	Tool Kit, Press Reducer (IT-70), T216D900-1	10	Dec 96	GFE	Onboard
073	Test Stand, Oxygen (IT-71), 1455AS100-1	10	Dec 96	GFE	Onboard
074	Purging Device Kit, 50C-0001-1	4	Dec 96	GFE	Onboard
094	Oxygen Monitor, 3270023-0401	3	Dec 00	GFE	Pending
098	Oxygen Concentrator, 3261009-0105	1	Dec 00	GFE	Pending
099	Oxygen Regulator, 3260014-0401	8	Dec 00	GFE	Pending
102	Valve Regulating, 8-540	1	Dec 00	GFE	Pending
104	Oxygen Concentrator, 3261077-0101	1	Dec 00	GFE	Pending
107	Valve Regulator, 85-15560-15-580	1	Dec 00	GFE	Pending
108	Regulator Nitrogen, 8-250	1	Dec 00	GFE	Pending
110	Oxygen Cylinder, RR-C-901/1	2	Dec 00	GFE	Pending
111	Nitrogen Cylinder, RR-C-901/1	2	Dec 00	GFE	Pending

**GPTE**

015	Gage, Pressure, 0-3000 PSI	1	Dec 96	GFE	Onboard
016	Gage, Pressure, 0-160 PSI	12	Dec 96	GFE	Onboard
017	Gage, Low Pressure, 0-15 PSI	2	Dec 96	GFE	Onboard
018	Oxygen Gage, 200 PSI	2	Dec 96	GFE	Onboard
019	Gage, 813095-1	5	Dec 96	GFE	Onboard
020	Gage assembly, KB-390-400	1	Dec 96	GFE	Onboard
021	Pressure Gage, 0-3000 PSI	1	Dec 96	GFE	Onboard
023	Pressure Gage, 0-160 PSI	5	Dec 96	GFE	Onboard

**SPTE**

024	Gage, MD-1	15	Dec 96	GFE	Onboard
025	Gage, MD-2	10	Dec 96	GFE	Onboard
027	Manometer, D-293	1	Dec 96	GFE	Onboard
028	Thickness Gage, 1318426-7	12	Dec 96	GFE	Onboard
029	Gage, Precision, 0-10"	2	Dec 96	GFE	Onboard
030	Regulator, R-1	11	Dec 96	GFE	Onboard
031	Gage, Differential, F-122-2-W	2	Dec 96	GFE	Onboard
032	Simulator, 62-A-116-D55	5	Dec 96	GFE	Onboard

033    Piezometer, 62-A-116-C48

5    Dec 96    GFE    Onboard



#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

034	Manometer, JM80BA12A73A	1	Dec 96	GFE	Onboard
035	Manometer, JM20A12A7A	1	Dec 96	GFE	Onboard
036	Flowmeter, 1370-3T	2	Dec 96	GFE	Onboard
037	Altitude Controller, 00-63-6993	9	Dec 96	GFE	Onboard
038	Altitude Indicator, 10,000-40,000 ft.	1	Dec 96	GFE	Onboard
039	Altitude Indicator, 30,000-150,000 ft.	1	Dec 96	GFE	Onboard
040	Manometer, 12-26	2	Dec 96	GFE	Onboard
041	Needle Valve	3	Dec 96	GFE	Onboard
042	Vacuum Pump	1	Dec 96	GFE	Onboard
043	Guide, Spring, 0.546	15	Dec 96	GFE	Onboard
044	Guide, Spring, 0.562	15	Dec 96	GFE	Onboard
045	Guide, Spring, 0.578	15	Dec 96	GFE	Onboard
046	Guide, Spring, 0.593	15	Dec 96	GFE	Onboard
047	Guide, Spring, 0.662	15	Dec 96	GFE	Onboard
048	Guide, Spring, 0.682	15	Dec 96	GFE	Onboard
049	Guide Assembly, 14840	20	Dec 96	GFE	Onboard
050	Spacer, 14B65	20	Dec 96	GFE	Onboard
051	Brush Bore, 7790452	4	Dec 96	GFE	Onboard
053	Pressure Guard, 0-175 PSI	10	Dec 96	GFE	Onboard
054	Regulator, Pressure, 0-80 PSI	2	Dec 96	GFE	Onboard
055	Balance Wheel, 240452	10	Dec 96	GFE	Onboard
088	Test Set, Concentrator, 1779AS500-1	2	Dec 00	GFE	Pending
091	Gauge lever Height, 3301113-1	2	Dec 00	GFE	Pending
096	Test Set Concentrator, 3300158-6101	1	Dec 00	GFE	Pending
097	Test Set, Regulator/Monitor, 3300157-6101	2	Dec 00	GFE	Pending
103	Test Set, TTU-520, 1582AS500-2	1	Dec 00	GFE	Pending
105	Barometer, 1130600-1	1	Dec 00	GFE	Pending
<b>ST</b>					
052	Torque Wrench, TE6FUA	1	Dec 96	GFE	Onboard
056	Tap Kit, Special, STP-1	1	Dec 96	GFE	Onboard

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

089	Heat Gun, EP-5	1	Dec 00	GFE	Pending
090	Wrench Aneroid, 3301111-1	2	Dec 00	GFE	Pending
092	Punch Hollow Ring, 330114-1	1	Dec 00	GFE	Pending
093	Pliers, Retaining, 3301098-6001	2	Dec 00	GFE	Pending
106	Screwdriver Aneroid, 3301112-1	1	Dec 00	GFE	Pending
109	Tool Box, 297	2	Dec 00	GFE	Pending

**GPETE**

057	Multimeter, Simpson 260	4	Dec 96	GFE	Onboard
095	Power Supply, 28VDC, 3190-4025	2	Dec 00	GFE	Pending
101	Fluke Meter, 77/BN	1	Dec 00	GFE	Pending

**SPETE**

087	Test Set, Environmental Control, 1582AS300-2	1	Dec 00	GFE	Pending
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**CIN, COURSE TITLE:** C-602-2027, Oxygen Systems Components Test Stand/Oxygen Regulator Repair (Track C-602-2040)**TRAINING ACTIVITY:** NATTC**LOCATION, UIC:** NAS Pensacola, Florida, 63093

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
<b>TTE</b>					
001	Panel Mounted Bendix, Oxygen Regulator	15	Dec 96	GFE	Onboard
075	Cleaning Tank Ultra, HT1212	2	Dec 96	GFE	Onboard
076	Generator, Ultrasonic, N1000-XHS01-120-600	1	Dec 96	GFE	Onboard
077	Regulator, MD1, 14950-26	1	Dec 96	GFE	Onboard
078	Regulator, MD1, 29255-100B9	1	Dec 96	GFE	Onboard
079	Regulator, MD1, 2894-10AB2	4	Dec 96	GFE	Onboard
080	Cleaner, Ultrasonic, SEC1825	1	Dec 96	GFE	Onboard
081	Test Stand, Oxygen, 1172AS100	9	Dec 96	GFE	Onboard
082	Regulator, Oxygen MD-1, 14950-12	33	Dec 96	GFE	Onboard
083	Regulator, Oxygen MD-2, 14800-8B	33	Dec 96	GFE	Onboard
084	Regulator, Oxygen, CRU-79, 900-002-025-05	33	Dec 96	GFE	Onboard
085	Test Stand, Oxygen, 1316AS100	1	Dec 96	GFE	Onboard
086	Truck Hand, Two Wheel, KKK-T-728	2	Dec 96	GFE	Onboard

#### IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

##### GPTE

015	Gage, Pressure, 0-3000 PSI	1	Dec 96	GFE	Onboard
016	Gage, Pressure, 0-160 PSI	12	Dec 96	GFE	Onboard
017	Gage, Low Pressure, 0-15 PSI	2	Dec 96	GFE	Onboard
018	Oxygen Gage, 200 PSI	2	Dec 96	GFE	Onboard
019	Gage, 813095-1	5	Dec 96	GFE	Onboard
020	Gage Assembly, KB-390-400	1	Dec 96	GFE	Onboard
021	Pressure Gage, 0-3000 PSI	1	Dec 96	GFE	Onboard
022	Pressure Gage, 0-200 PSI	2	Dec 96	GFE	Onboard
023	Pressure Gage, 0-160 PSI	5	Dec 96	GFE	Onboard

##### SPTE

024	Gage, MD-1	15	Dec 96	GFE	Onboard
025	Gage, MD-2	10	Dec 96	GFE	Onboard
027	Manometer, D-293	1	Dec 96	GFE	Onboard
028	Thickness Gage, 1318426-7	12	Dec 96	GFE	Onboard
029	Gage, Precision, 0-10"	2	Dec 96	GFE	Onboard
030	Regulator, R-1	11	Dec 96	GFE	Onboard
031	Gage, Differential, F-122-2-W	2	Dec 96	GFE	Onboard
032	Simulator, 62-A-116-D55	1	Dec 96	GFE	Onboard
033	Piezometer, 62-A-116-C48	5	Dec 96	GFE	Onboard
034	Manometer, JM80BA12A73A	1	Dec 96	GFE	Onboard
035	Manometer, JM20A12A7A	1	Dec 96	GFE	Onboard
036	Flowmeter, 1370-3T	2	Dec 96	GFE	Onboard
037	Altitude Controller, 00-63-6993	9	Dec 96	GFE	Onboard
038	Altitude Indicator, 10,000-40,000 ft.	1	Dec 96	GFE	Onboard
039	Altitude Indicator, 30,000-150,000 ft.	1	Dec 96	GFE	Onboard
040	Manometer, 12-26	2	Dec 96	GFE	Onboard
041	Needle Valve	3	Dec 96	GFE	Onboard
042	Vacuum Pump	1	Dec 96	GFE	Onboard
043	Guide, Spring, 0.546	15	Dec 96	GFE	Onboard

044 Guide, Spring, 0.562

15 Dec 96 GFE Onboard

**IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE**

045	Guide, Spring, 0.578	15	Dec 96	GFE	Onboard
046	Guide, Spring, 0.593	15	Dec 96	GFE	Onboard
047	Guide, Spring, 0.662	15	Dec 96	GFE	Onboard
048	Guide, Spring, 0.682	15	Dec 96	GFE	Onboard
049	Guide Assembly, 14840	20	Dec 96	GFE	Onboard
050	Spacer, 14B65	20	Dec 96	GFE	Onboard
051	Brush Bore, 7790452	4	Dec 96	GFE	Onboard
053	Pressure Guard, 0-175 PSI	10	Dec 96	GFE	Onboard
054	Regulator, Pressure, 0-80 PSI	2	Dec 96	GFE	Onboard
055	Balance Wheel, 240452	10	Dec 96	GFE	Onboard
<b>ST</b>					
052	Torque Wrench, TE6FUA	1	Dec 96	GFE	Onboard
056	Tap Kit, Special, STP-1	1	Dec 96	GFE	Onboard
<b>GPETE</b>					
057	Multimeter, Simpson 260	4	Dec 96	GFE	Onboard

#### IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

**CIN, COURSE TITLE:** C-670-2018, Aviator's Breathing Oxygen (ABO) Test Site Operator/Analyst (Track C-602-2040)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** NAS Pensacola, Florida, 63093

<b>TYPES OF MATERIAL OR AID</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
Curriculum Outline	2	Dec 96	Onboard
Instructor Guide	2	Dec 96	Onboard
Student Guide	10	Dec 96	Onboard

**CIN, COURSE TITLE:** C-602-2028, LOX Converter Test Stand/LOX Converter and SKU Repair/OBOGS Component Repair (Track C-602-2040)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** NAS Pensacola, Florida, 63093

<b>TYPES OF MATERIAL OR AID</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
Curriculum Outline	2	Dec 96	Onboard
Instructor Guide	2	Dec 96	Onboard
Overhead Transparency Sets	2	Dec 96	Onboard
Student Guide	10	Dec 96	Onboard

**CIN, COURSE TITLE:** C-602-2027, Oxygen Systems Components Test Stand/Oxygen Regulator Repair (Track C-602-2040)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** NAS Pensacola, Florida, 63093

<b>TYPES OF MATERIAL OR AID</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
Curriculum Outline	2	Dec 96	Onboard
Instructor Guide	2	Dec 96	Onboard
Overhead Transparency Sets	2	Dec 96	Onboard
Student Guide	10	Dec 96	Onboard

#### IV.B.3. TECHNICAL MANUALS

**CIN, COURSE TITLE:** C-670-2018, Aviator's Breathing Oxygen (ABO) Test Site Operator/Analyst (Track C-602-2040)  
**TRAINING ACTIVITY:** NATTC  
**LOCATION, UIC:** NAS Pensacola, Florida, 63093

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 06-30-501 Oxygen/Nitrogen Cryogenic Systems	Hard copy	11	Dec 96	Onboard
NAVAIR 17-15-98 Installation Operation and Maintenance Instructions, ABO Contaminant Analyzer	Hard copy	11	Dec 96	Onboard
NAVAIR AG-332AO-GYD-000 Aviator's Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide	Hard copy	11	Dec 96	Onboard

**CIN, COURSE TITLE:** C-602-2028, LOX Converter Test Stand/LOX Converter and SKU Repair/OBOGS Component Repair (Track C-602-2040)  
**TRAINING ACTIVITY:** NATTC  
**LOCATION, UIC:** NAS Pensacola, Florida, 63093

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 00-25-100 Naval Air Systems Command Technical Manual Program	Hard copy	2	Dec 96	Onboard
NAVAIR 00-25-DRT-1 Automatic Distribution Requirements List	Hard copy	1	Dec 96	Onboard
NAVAIR 00-35QH-2 NAVAIR Initial Outfitting List of Flight Operational Material and Airborne Operational Equipment Replenishment Items/Spare Parts	Hard copy	1	Dec 96	Onboard
NAVAIR 00-35QH-2-4 NAVAIR Initial Outfitting List of Flight Operational Material and Airborne Operational Equipment Replenishment Items/Spare Parts	Hard copy	1	Dec 96	Onboard
NAVAIR 00-500A Equipment Applicability List	Microfiche	3	Dec 96	Onboard
NAVAIR 00-500AV Avionics Changes Cross Reference	Microfiche	3	Dec 96	Onboard
NAVAIR 00-500B Aircraft Application List	Microfiche	3	Dec 96	Onboard
NAVAIR 00-500C Directives Application List	Microfiche	3	Dec 96	Onboard

#### IV.B.3. TECHNICAL MANUALS

NAVAIR 00-500M Microfilm Cartridge Cross Reference	Microfiche	3	Dec 96	Onboard
NAVAIR 00-500SE Support Equipment Cross Reference	Microfiche	3	Dec 96	Onboard
NAVAIR 13-1-6.3 Aviation-Crew Systems Seat Survival Kits	Hard copy	2	Dec 96	Onboard
NAVAIR 13-1-6.4 Aviation-Crew Systems Oxygen Equipment	Hard copy	2	Dec 96	Onboard
NAVAIR 13-1-6.8 Aviation-Crew Systems Equipment Work Unit Code Manual	Hard copy	2	Dec 96	Onboard
NAVAIR 16-1-8 Aeronautical Support Equipment Index	Hard copy	2	Dec 96	Onboard
NAVAIR 16-1-8.1 Aeronautical Support Equipment Work Unit Code Manual	Hard copy	2	Dec 96	Onboard
NAVAIR 17-15BC-11 Handbook of Maintenance Instructions with Illustrated Parts Breakdown-Oxygen System Components Test Stand	Hard copy	2	Dec 96	Onboard
NAVAIR 17-15BC-20 Handbook of Maintenance Instructions with Illustrated Parts Breakdown-Liquid Oxygen Converter Test Stand	Hard copy	2	Dec 96	Onboard
NAVAIR 17-600-39-6-1 Preoperational Checklist Oxygen System Components Test Stand Model 62A116E1	Hard copy	13	Dec 96	Onboard
NAVAIR 17-600-39-6-2 Periodic Maintenance Requirements Manual OTS 62A116E1	Hard copy	13	Dec 96	Onboard
NAVAIR AG-332AO-GYD-000 Aviator's Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide	Hard copy	13	Dec 96	Onboard
NAVAIRINST 13650.1 NAVAIRSYSCOM Aircraft Maintenance Material Readiness List	Hard copy	1	Dec 96	Onboard
NAVAIRINST 5215.8 (Series) NAVAIR Technical Directive System	Hard copy	1	Dec 96	Onboard
NAVEDTRA 10077 Blueprint Reading and Sketching	Hard copy	1	Dec 96	Onboard



#### IV.B.3. TECHNICAL MANUALS

NAVSUP 2002 Navy Stock List of Publications and Forms	Microfiche	1	Dec 96	Onboard
NAVSUP 2320 Source, Maintenance and Recoverability Code Changes	Microfiche	1	Dec 96	Onboard
NAVSUP 4000 Introduction to Supply Catalogs and Related Publications	Hard copy	3	Dec 96	Onboard
NAVSUP P-485 Afloat Supply Procedures	Hard copy	1	Dec 96	Onboard
OPNAVINST 3750.6 (Series) Naval Aircraft Mishap Reporting Procedures	Hard copy	1	Dec 96	Onboard
OPNAVINST 4790.2 (Series) Naval Aviation Maintenance Program	Hard copy	1	Dec 96	Onboard

**CIN, COURSE TITLE:** C-602-2027, Oxygen Systems Components Test Stand/Oxygen Regulator Repair (Track C-602-2040)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** NAS Pensacola, Florida, 63093

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 00-25-100 Naval Air Systems Command Technical Manual Program	Hard copy	2	Dec 96	Onboard
NAVAIR 00-25-DRT-1 Automatic Distribution Requirements List	Hard copy	1	Dec 96	Onboard
NAVAIR 00-35QH-2 NAVAIR Initial Outfitting List of Flight Operational Material and Airborne Operational Equipment Replenishment Items/Spare Parts	Hard copy	1	Dec 96	Onboard
NAVAIR 00-35QH-2-4 NAVAIR Initial Outfitting List of Flight Operational Material and Airborne Operational Equipment Replenishment Items/Spare Parts	Hard copy	1	Dec 96	Onboard
NAVAIR 00-500A Equipment Applicability List	Microfiche	3	Dec 96	Onboard
NAVAIR 00-500AV Avionics Changes Cross Reference	Microfiche	3	Dec 96	Onboard
NAVAIR 00-500B Aircraft Application List	Microfiche	3	Dec 96	Onboard

#### IV.B.3. TECHNICAL MANUALS

NAVAIR 00-500C Directives Application List	Microfiche	3	Dec 96	Onboard
NAVAIR 00-500M Microfilm Cartridge Cross Reference	Microfiche	3	Dec 96	Onboard
NAVAIR 00-500SE Support Equipment Cross Reference	Microfiche	3	Dec 96	Onboard
NAVAIR 13-1-6.3 Aviation-Crew Systems Seat Survival Kits	Hard copy	2	Dec 96	Onboard
NAVAIR 13-1-6.4 Aviation-Crew Systems Oxygen Equipment	Hard copy	2	Dec 96	Onboard
NAVAIR 13-1-6.8 Aviation-Crew Systems Equipment Work Unit Code Manual	Hard copy	2	Dec 96	Onboard
NAVAIR 16-1-8 Aeronautical Support Equipment Index	Hard copy	2	Dec 96	Onboard
NAVAIR 16-1-8.1 Aeronautical Support Equipment Work Unit Code Manual	Hard copy	2	Dec 96	Onboard
NAVAIR 17-15BC-11 Handbook of Maintenance Instructions with Illustrated Parts Breakdown-Oxygen System Components Test Stand	Hard copy	2	Dec 96	Onboard
NAVAIR 17-15BC-20 Handbook of Maintenance Instructions with Illustrated Parts Breakdown-Liquid Oxygen Converter Test Stand	Hard copy	2	Dec 96	Onboard
NAVAIR 17-600-39-6-1 Preoperational Checklist Oxygen System Components Test Stand Model 62A116E1	Hard copy	13	Dec 96	Onboard
NAVAIR 17-600-39-6-2 Periodic Maintenance Requirements Manual OTS 62A116E1	Hard copy	13	Dec 96	Onboard
NAVAIR AG-332AO-GYD-000 Aviator's Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide	Hard copy	13	Dec 96	Onboard
NAVAIRINST 13650.1 NAVAIRSYSCOM Aircraft Maintenance Material Readiness List	Hard copy	1	Dec 96	Onboard
NAVAIRINST 5215.8 (Series) NAVAIR Technical Directive System	Hard copy	1	Dec 96	Onboard

#### IV.B.3. TECHNICAL MANUALS

NAVEDTRA 10077 Blueprint Reading and Sketching	Hard copy	1	Dec 96	Onboard
NAVSUP 2002 Navy Stock List of Publications and Forms	Microfiche	1	Dec 96	Onboard
NAVSUP 2320 Source, Maintenance and Recoverability Code Changes	Microfiche	1	Dec 96	Onboard
NAVSUP 4000 Introduction to Supply Catalogs and Related Publications	Hard copy	3	Dec 96	Onboard
NAVSUP P-485 Afloat Supply Procedures	Hard copy	1	Dec 96	Onboard
OPNAVINST 3750.6 (Series) Naval Aircraft Mishap Reporting Procedures	Hard copy	1	Dec 96	Onboard
OPNAVINST 4790.2 (Series) Naval Aviation Maintenance Program	Hard copy	1	Dec 96	Onboard

## PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
OPTEVFOR	Completed OBOGS OPEVAL	Oct 83	Completed
DA	Conducted analysis of manpower, personnel, and training requirements for OBOGS	Dec 84	Completed
TSA	Conducted OBOGS initial training	Dec 84	Completed
TSA	Began follow-on OBOGS training at NAMTRAGRU DETs	Jan 85	Completed
DA	Achieved IOC for the OBOGS	Jun 85	Completed
DPA	Achieved OBOGS MSD	FY86	Completed
DPA	Achieved OBOGS NSD	FY87	Completed
DA	Approved maintenance plan for the ABO Contaminant Analyzer	Jun 93	Completed
TSA	Completed initial training for the ABO Contaminant Analyzer	Jul 93	Completed
DA	Delivered curricula materials for the ABO Contaminant Analyzer	Aug 93	Completed
TSA	Approved NTP for the ABO Contaminant Analyzer distributed	Jan 94	Completed
DPA	Achieved ABO Contaminant Analyzer MSD	Sep 95	Completed
DPA	Achieved ABO Contaminant Analyzer NSD	Sep 96	Completed
TSA	Discontinued OBOGS training at the NAMTRAGRU DETs	Dec 99	Completed
TSA	Deliver OBOGS TTE to NATTC Pensacola	Dec 00	Pending
TSA	Begin OBOGS follow-on training at NATTC Pensacola	Jun 01	Pending

**PART VI - DECISION ITEMS / ACTION REQUIRED**

**DECISION ITEM OR  
ACTION REQUIRED**

**COMMAND ACTION**

**DUE DATE**

**STATUS**

None

## PART VII - POINTS OF CONTACT

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